SUPPLEMENT.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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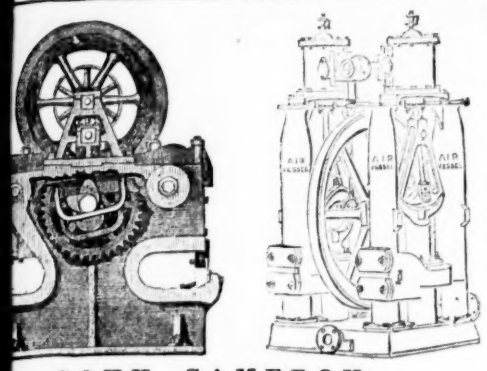

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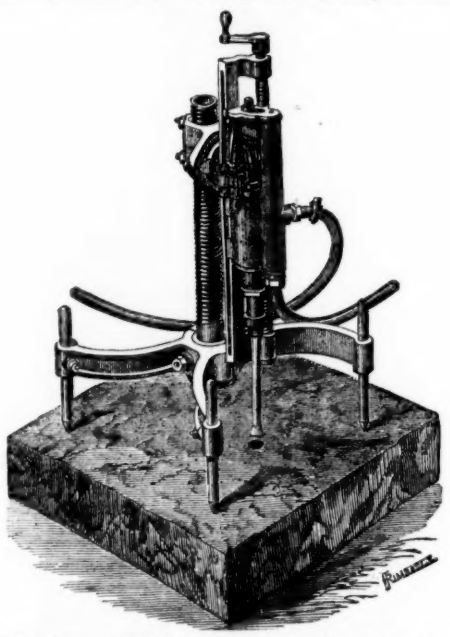

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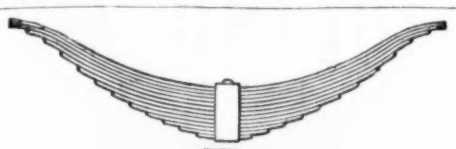

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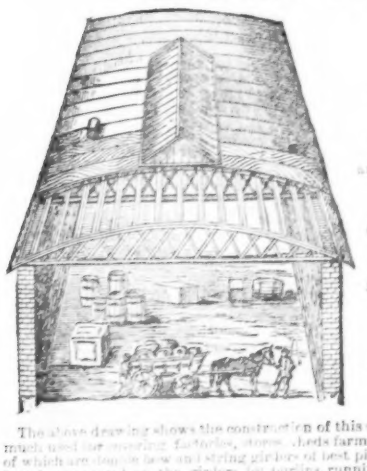

The above drawing shows the construction of this cheap and handsome roof, now much used for covering factories, stores, sheds farm buildings, &c., the principal of which are shown in new and strong girders of best pine timber, sheeted with 1¼ in. boards, supported on the girders by purlins running longitudinally, the whole being covered with patent waterproof roofing felt. These roofs so combine light ness with strength that they can be constructed up to 100 ft. span without centre supports, thus not only affording a clear wide space, but effecting a great saving both in the cost of roof and uprights.

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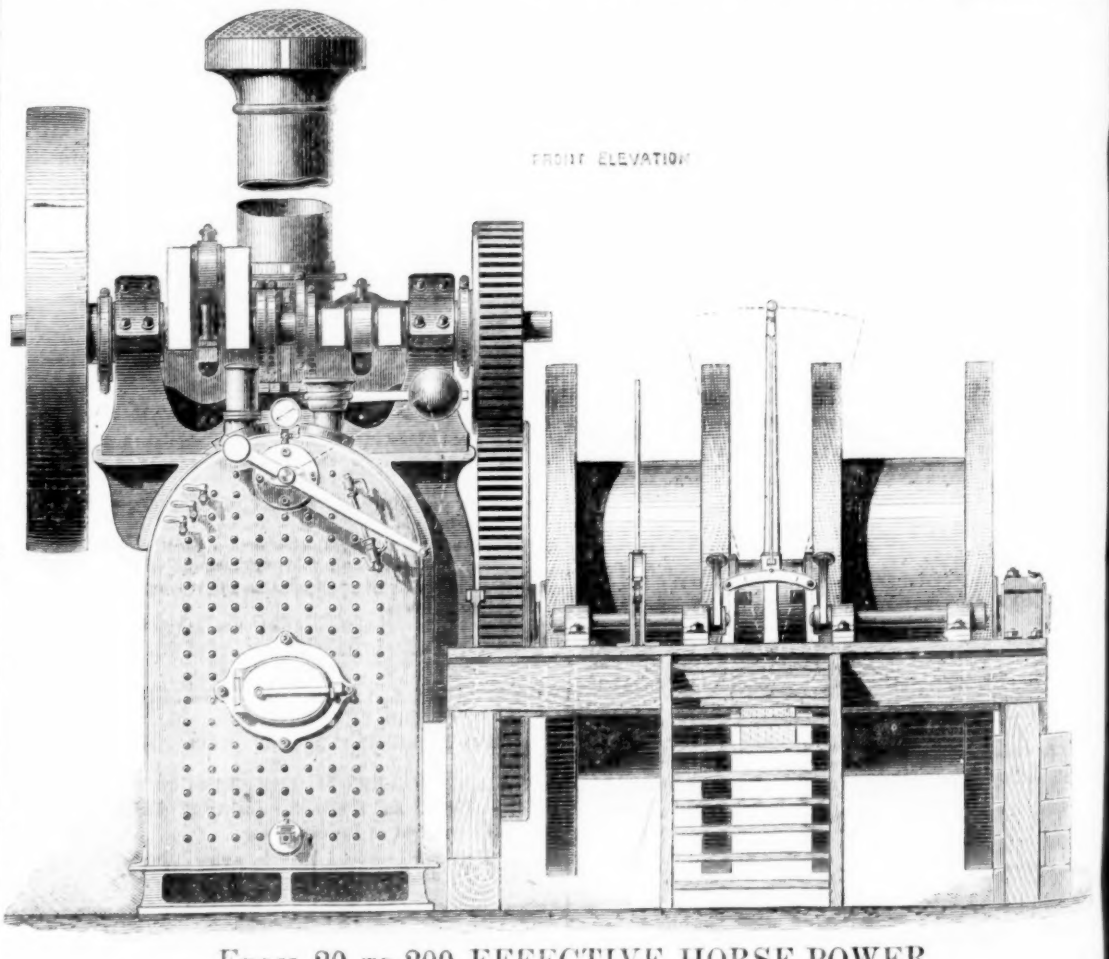

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This Engine is specially commended to Mining Engineers and others, as by its adoption—
Haulage along inclined drifts is easily and cheaply effected;
The expense of sinking new shafts is greatly reduced, neither foundations nor engine-house being required
It is available not only for winding, but for pumping, sawing, &c.—a great desideratum at a large colliery;
It can be very quickly removed (being self-propelling), and fixed in any desired position.
Prices and full particulars on application as above, and also references to view the engine in successful work near Derby, Carnarvon, Haverfordwest, Darlington, Durham, Penzance, and other places.

THESE ENGINES WORK WITH MARVELLOUS ECONOMY IN FUEL.

Original Correspondence.

SANDWELL PARK TRIAL SINKING.

SIR,—As a great deal has been said lately in private circles as to the prospect of finding coal at this place, and it having been industriously circulated by a local F.G.S. that the red rocks, conglomerates, and marls passed through in the 28 yard bore-hole, ending at 294 yards, were "old red sandstone," I made a visit to the *locus in quo*, determined to ascertain what information I could for myself. Being the oldest mining engineer living in South Staffordshire, perhaps my opinion may be considered worth having. For very many years I have looked upon the extension of the coal field in the direction of the "Hardware City" with great interest, and, indeed, expectation; for I stated 30 years ago, after a visit to the pits at Bromsgrove Lickey, that "I could drive a gate-road from West Bromwich to the Bull Ring in Birmingham if I had the opportunity." That prediction is every day getting nearer realisation, for I find the Sandwell Pit is now 296 yards deep, and in as promising coal measure rock as could be wished. The sinkers and officials at the pit showed me a heap of fossils which have been recently discovered in the red conglomerate, calamites of various species, which are all coal measure fossils, and the rock now being sent up is a blush, fine conglomerate, just like the "Espley rock," which usually lies a little above the brooch coal. The red ground gone through is no more like old red sandstone than I am like the Shah! I own one share out of 200 in this enterprise, but so far from writing it up for interested purposes, you, Mr. Editor, should not have my share for all your printing establishment.

"In for a penny, in for a pound" with me, and I would strongly advise the shareholders not to be frightened out of their property by any amateur local geologist, who does not know coal measures from old red sandstone. As the directors appear to be very chary in giving information to the shareholders or the public I shall pay the pit another visit, and give you a second "stave," when you will be able to judge how far I am correct in this instance. Meanwhile, do not let any more "old red sandstone" dust be thrown in the eyes of the shareholders and the public.

The mining engineer of the colliery I have known for more than 40 years, and he is made of the wrong sort of stuff not to find the coal if it is there, and having myself travelled "over, into, through, and out of" the old Staffordshire mines for nearly 50 years, am too old to be "scar'd" at the cry of "old red sandstone." "Patience" should be our motto. BROOKE RIDGWAY SMITH, M.E.

Villa-road, Handsworth, Nov. 17.

AMERICAN MINING—WHY SO DEPRESSED?

SIR,—My attention has been called to an article in the Journal of a recent date, over the signature of the historian of the Emma Mine, Mr. S. T. Paffard. Putting to the stockholders certain questions in regard to the Flagstaff Mine, he says:—

For instance, they might enquire and find out why Mr. Maxwell has resigned or been recalled? What were his qualifications for being sent out as manager, and being allowed to undertake the management of three mines scattered widely apart, in the case of the Tecoma, a very long distance from the other two? Who has been buying the ore or bullion from Flagstaff and Last Chance? Whether proper and regular accounts have been remitted of what has been sold out there? Whether the chief accountant of the Flagstaff has not had to be sent out very recently himself to go through the accounts at the mine, failing their being sent home in due course, as repeatedly ordered by the board? Whether the principal vendors have not disposed of all, or nearly all, their shares? Whether Capt. Forbes, R.N., sent out to put matters to rights, has not also got rid of his shares, presumably from knowledge of the real state of things on the spot?

It is not my purpose to answer all the above queries, or to supply to the stockholders of the Flagstaff Mine all the information called for by Mr. Paffard's communication; but to show to the English stockholders one instance, at least, why it is that American mines are so depressed in Great Britain, and why the Flagstaff shares have fallen so low in the English market. I think I shall be able to show that it is no fault of the mine, but arises from a system of mismanagement and extravagance on the part of those *sent out to put matters to rights*.

When Mr. Maxwell took charge of the Flagstaff the company had been paying dividends of 2 per cent. per month, and continued paying dividends under his management regularly until Capt. Forbes, R.N., was *sent out to put matters to rights*.

The company had paid dividends up to the advent of Capt. Forbes, R.N., as follows:—

From February, 1872, to January, 1873, both inclusive, 12 months at 2 per cent. per month	$330,000
February and March, 1873, two months at 3 percent. per month	90,000
Total dividends paid in 14 months	$450,000

In April, 1873, Capt. Forbes, R.N., took charge of the Flagstaff as managing director, at a salary (as report goes) of $50,000 for six months' services, which is the present salary of the President of the United States for one year, and an amount equal to Abraham Lincoln's salary for two years during the rebellion, when he had 1,000,000 soldiers in the field. When Capt. Forbes, R.N., took charge of the Flagstaff the company had two furnaces running, which were producing about 65 tons of bullion per week, and smelting about 260 tons of ore per week. This bullion averaged $330 per ton in lead and silver, making the yield about $21,450 per week. The following estimate of the cost of producing bullion, and the net profits thereon, will show that the company could have paid its regular dividends of 2 per cent. per month if the property had been managed economically, and with the skill and judgment a $100,000 a-year man ought to furnish.

Estimate of the cost of producing bullion from the Flagstaff Mine and Furnaces.

Cost of mining per ton of ore	$10·00
Cost of sacking per ton of ore	3·00
Cost of hauling per ton of ore	8·00
Cost of smelting per ton of ore	20·00
Total	$41·00
4 Tons of ore to make 1 ton of bullion.	
Cost of mining, sacking, hauling, and smelting 4 tons of ore at $41 per ton	$164·00
Cost of hauling 1 ton of bullion to railroad	1·25
Cost of sampling and loading	·50
Cost of 1 ton bullion delivered on cars	$165·75
Value of 1 ton of bullion on cars	$330·00
Cost of producing	165·75
Net profit on 1 ton of bullion	$164·25

Or a net profit of $41·06 on 1 ton of ore.

Smelting was suspended at the furnaces by Capt. Forbes, R.N., about April 20. The old furnaces which had produced the wonderful results above stated were torn down, and two new ones built in their place at a cost of of $20,000, which are no better, if so good, as the old ones. The new furnaces were started up the middle or latter part of August, by which it will be seen that the company's works were not producing for a period of about four months. Taking the yield of the furnaces under Mr. Maxwell at 65 tons of bullion per week, and the profit per ton of bullion as shown by the foregoing estimate of $164·25, we have a loss of $42,705 per month, and a total loss of $170,820 for the four months the furnaces lay idle.

During the four months the company's furnaces were idle Capt. Forbes, R.N., sold 3000 tons of ore for an average of $45 per ton. Had this ore been smelted in the company's furnaces it would have netted the company $37·50, far more than was realised by selling in the open market. Consequently there was a loss to the company on this transaction of $112,500. I will now give a summary of the company's losses by reason of its own extravagance, and the mismanagement of its agents *sent out to put matters to rights*.

In making this summary, I shall include the salary of Capt Forbes, R.N., for the reason that consider the company require the services of a $50,000 manager about as much as a toad requires a side pocket—but to the

Summary.

Loss in the cost of building new furnaces	$ 20,000
Loss by reason of works standing still 4 months	170,820
Loss on 3000 tons ore at $37·50 per ton	112,500
Capt. Forbes' salary for six months	50,006
Total loss in from four to six months	$353,320

From the above summary it will be readily inferred that if Mr. Maxwell had not been superseded in authority, and had been left to manage the Flagstaff property as he had been doing, the stockholders would have received their regular 2 per cent. dividends monthly. It will, doubtless, be found out eventually that Capt. Forbes, R.N., is in the interest of an extensive "Bear" movement, and that he and his friends sold out when the stock was up; and now that he has succeeded in reducing it to about its lowest ebb, they are buying it in. If such is not the case, then his whole course is a piece of muleish stupidity.

Mr. Maxwell took charge of the Flagstaff in June, 1872. The shares were then quoted in London at 13*l.* He continued in charge until April, 1873, when he was superseded by Capt. Forbes. At this date the shares were selling in London for 15*l.* 10s. Capt. Forbes has now had charge about six months, and has succeeded in reducing the shares from 15*l.* 10s. to 3*l.*; and this in the face and eyes of his telegram to London that the present dividends (2 per cent. per month) can be maintained, and a reserve fund created. With the above statement of facts I leave the English shareholders to draw their own conclusion.

I have no interest in the Flagstaff Company directly or indirectly. I have not the honour of Capt. Forbes acquaintance, and have no desire to do him an injury. I have but a slight acquaintance with Mr. Maxwell, and have no interest to bolster him up. In fact, he does not need it at my hands. The regular monthly dividends which were declared under his management are his vindication, if he needed any. I have made the above statements in the interest of no one, and for the sole object to enlighten the deluded stockholders of the Flagstaff Mining Company. OBSERVER.

Salt Lake City, Utah Territory, Oct. 30.

AMERICAN MINING—CAUSE OF FAILURE.

SIR,—Having observed in the *Mining Journal* of Sept. 13 the excellent letter of Mr. Robt. Knapp, I beg to trouble you with a few further remarks on the subject. Since my residence here I have had the advantage of visiting several of the mining districts, both in Utah and California, and of conversing with a great number of men of various nationalities, who are interested in mining, and regret to say a far more serious charge than credulity is brought against the English. The general opinion is, as far as I have heard it expressed, that the principal failures in mining enterprises carried on in this country by British capital are due to the dishonesty, or utter incompetency, of many of the men sent out here, much more than to their credulity. The English capitalists (say the Americans) were not swindled by the Americans, because they refused, in almost every case, to credit American statements, and trusted to their own agents, who, for reasons sufficiently apparent, not only confirmed but exaggerated the already overgrown statements of the sellers, giving the most glowing descriptions of mines, which consisted frequently of only a few small pits, there being in reality no mine at all, but merely what is here called a "prospect."

Perhaps the most fertile source of failure has not been alluded to by Mr. Knapp. It is the immense expenditure incurred in placing mines on the market, and in forming companies to work them. The discoveries are generally made by poor men who are glad to receive a few thousand dollars for their prospects, but it would be useless to offer a mine for any such small sum in London; to stand a chance of success the value must be reckoned by tens or hundreds of thousands. Frequently only a part of the stock is taken up, and in order to get out the balance dividends must be declared. This can only be accomplished by rushing out, or, as the miners say, "dragging out the ore by the hair of the head," and turning it at once into cash. Of course, under these circumstances, developments cannot be thought of; they would interfere with the raising of ore, and the whole resources of the mine being concentrated on raising ore, considerable dividends are soon made, and the shares rise to the advantage of first holders, but to the ruin of their successors and the mine as well.

Those mines that survive the ordeal of being floated have still heavy storms to weather, amongst which the system of management is one of the heaviest. Although in England it rarely occurs that anyone has the management of a mine who has not been brought up in the business, yet it appears to be a very general opinion that any man can manage a foreign mine, notwithstanding the difficulties are so much greater; and one sees installed as managers army and navy men, lawyers, and broken-down gentlemen, who have been unsuccessful in their own line of business, and whose sole qualification is, frequently, intimate relations with head-quarters. What would be said of a company retaining a sea-captain to take their case through a court of law, or a lawyer to sail a ship, and yet in this branch of industry in which the best skill and the longest experience are not unfrequently at fault men have the management who cannot value a fathom of ground, and do not know a lode or a piece of ore when they see it.

These remarks do not apply solely to the English companies, Americans have done the same, but in this latter case it has frequently arisen from the impossibility of finding American mine managers. Failure is not caused by the difficulty of working the mines, for, generally speaking, the rock is very easy, and requires but little timbering, and the mines are dry, or nearly so, to very considerable depths. The high rate of wages is certainly a drawback, but this is compensated for to a great extent by the above advantages, and the fact that the mines are free of royalty and the ore as raised from the mines immensely richer than anything in England. Many mines are raising from 500 to 1500 tons of ore, varying from 20 to 65 per cent. lead, and from 12 to 100 ounces and upwards of silver per ton of ore, with small quantities of gold, and this result is obtained with dressing, not even hand picking.

Most of these companies are expending little or nothing on the development of the mines, and no rational man can anticipate lasting results from such a course. You will probably consider it is now easy to descant on the errors of the past, but I do so in the hope that foreign mining will be conducted on a more rational basis, when, I doubt not, the mines will amply repay the investors, and I believe the public discussion of the subject in your columns would materially assist in attaining a result so much to be desired.

Bingham Canyon, Utah, U.S., Oct. 18. JOHN LONGMAID.

NOTES ON MINING IN MEXICO.

SIR,—Chihuhua is a large State in the Republic of Mexico. It is but little known, but from its natural resources and mineral wealth there is not one deserving more attention. Its geographical position and political influence has hitherto placed it solely within the grasp of a few foreigners, through whose blunders and losses, for want of mining ability and capital, capitalists have refrained from examining the country. The city of Chihuhua is the capital of the State of Chihuhua, and is situate about 4000 feet above the level of the sea, on a small plane, possessing a very fine climate, like the greater portion of the State, having a population of about 15,000 souls, intelligent and industrious, and but little addicted to political influences and revolutions, owing, probably, to its isolation from the other States of the Republic, which, as a mining centre, gives it great superiority over those located about the Pacific Coast with all their natural advantages, owing to the many disturbing qualities. It is impossible to furnish a full and minute description of the mineral properties of this vast State, but it is truly surprising to view the extensive openings and facilities afforded for the investment of small capital, and requires only examination to be appreciated.

The Sierra Madre (mother range) is the most noted for its mineral wealth, which courses north-east and south-west, traversed in its length, or longitudinal, by very rich veins of native silver, varying in size from 3 inches to 3 yards wide, with quartz, slate, and granite gangue, encased in granite walls. The sides of the mountain run very steep, and enable the tapping of the veins by deep adits, affording immense heights of ground, that can be extracted without molestation in pumping or hoisting. The veins are not regular in their yield, but subject to rich pockets, or bonanzas; notwithstanding this they are constant in turning up their riches at short intervals, and therefore require perseverance and sound management. A few years since a mine in this range yielded in one pocket $400,000, but the owners, being Mexicans, having applied it to other speculations, gambling, &c., immediately the performance of dead work became a necessity they became paralysed, and to the present day await capital. Oftentimes, with close examinations, small strings of silver, running at right angles with the veins, can be discovered in the deep canyons, on which tunnels can be commenced and continued to the vein, and which have in many instances paid the natives more than the entire cost incurred.

Guadalupe Y Calbo is a property that was well known about twenty years since in the London market, it being then worked by a London company; but, not being able to secure an extension of the then existing lease under their terms, and for other reasons, independent of the merits of the mine, it was relinquished, and taken possession of by its Mexican owners; but owing to the little practical intelligence applied to its development, and the want of proper resources, failed to reap such an abundance of good fortune as the prospects, at the time of negociating with the English company, appeared to warrant. The owners being now alive to the great blunder they committed, are disposed to part with or lease the property, on terms that cannot but be satisfactory to intended investors, The celebrated Balapillas Mine is situated in this mother range.

San Francisco. JAMES WHITE,
English Mining Engineer and Surveyor.

ORE REDUCTION BY MINE ADVENTURERS.

SIR,—The high price of fuel and labour at the present time, and the comparatively low price of copper, should suffice to induce the holders of shares in Cornish copper mines to make some greater efforts to increase their profits, especially by undertaking the reduction of their own ores. One cannot read the annual reports of even small German mine works without noticing that the reduction and smelting of the ores raised appears to be part of the miner's business. Nor is there any reason that it should not be so in this country, especially as there is a great many Cornish mines from which large profits would be made out of the attle heaps if they were in the hands of Germans. This is not because the Germans are better miners than the Cornishmen, far from it; indeed, I believe Cornishmen would do twice the work in the same time. But this is only the greater reason why the poor ores should be utilised by us; it is really discreditable to permit inferior workmen to realise larger profits for those employing them. I read week after week communications from metallurgists and chemists published in the *Mining Journal* explaining methods by which the metal can be extracted from foreign ores, yet our Cornish ores, of which they must of course know much more, they seldom speak about. Now, if they would suggest some really good process for treating by the humid way (the use of fuel and iron must be as far as possible avoided) the Cornish copper ores containing less than 2 per cent., I am sure there would be a vast field before them, and the royalty which they could secure would yield a large profit to those interested in the patents.

The great point at which those inclined to take up this matter should aim is to show that the use of iron to precipitate the copper is unnecessary, and that their process could be applied to the majority of Cornish ores. It was stated some time since that hydrochloric acid was obtained as a waste product at Manchester, and could be delivered in Cornwall at a merely nominal price, and it was suggested that this would facilitate the treatment of the poor copper ores; but whether the price of the acid after bearing the carriage was too high, or whether the process would not work on a large scale, I do not know. Be this as it may the invention was never brought into use, and I cannot learn that it was ever tested in Cornwall. As well as I can remember the waste acid was to be used for dissolving the ore, and the use of iron had been got rid of by using lime for a precipitant, but the details of the process I do not know. If something of this kind could now be introduced it would be a great boon to Cornwall, and the development of the invention would be preferable to sending capital abroad. MINER.

Nov. 17.

MINING AND ITS PROSPECTS.

SIR,—You have done me the honour of frequently inserting communications of mine in the Journal, and I am very thankful to say that investors and practical miners have alike expressed themselves in favour of my views sufficiently often to justify the hope that I may still be able to communicate some matters with your insertion and deserving perusal. I am especially desirous on this occasion to direct attention to our growing dependence on foreign metalliferous supplies. During the last ten years our discoveries have been very few, except of iron, and in that respect not to the extent that might have reasonably have been hoped. But taking the superior metals into view, no discoveries of any great account have been made—a few certainly have rewarded enterprise, but their number is insignificant compared with the marvellous advance in the consumption of those metals. Tin, copper, the yellow artificial metals, lead, zinc, and above all the precious metals, have sprung into request, and in the United Kingdom no adequate produce in any of these has been brought forth. What new tin mines have we had in Cornwall? What copper there, or in Devon? The Devon Great Consols has nearly gone out, like a burning wick in a socket. A few years ago Cardigan and the adjoining counties of Flint, Glamorgan, and Montgomery were theatres of expectation and hope, but the products of lead and silver-lead, for which they were growing famous, instead of increasing remain in *statu quo*. The Isle of Man is probably the richest little dot on the ocean for mineral treasure, but within the last ten years no new finds have taken place. As to Ireland, whatever be her resources, her own people and her neighbours seem by a sort of common consent to have agreed to neglect them; but the time for terminating this apathy is surely near at hand, for no doubt can be entertained that very valuable stores of mineral treasure are hidden within her hills.

It is faring with the miners as with the mines. A finer race of men this country never produced than the Cornish and Dartmoor miners. Where are they now? Just a remnant exists, bringing into memory the euphonious lines of the great and amiable Oliver Goldsmith—

"A brave peasantry, their country's pride,
When once destroyed can never be supplied."

The far-famed moral, intellectual, and religious Cornish miners are delving in the dark coal fields of the North, or of the Midland Counties, or they are far away on the shores of the Pacific, or in the inhospitable hills and vales of Utah. This is the more to be regretted, as these fine western men are devotedly fond of their own wild and wealthy Cornwall, and will never forget it, but may be described as Campbell's Exile—

"For his country he sighed, as at twilight repairing
To wander alone by the wind-beaten hill."

It ought to be remembered that skill and money have been applied in quest of fresh mines, and without any commensurate success.

There is another matter of very great importance that ought not to be lost sight of at this juncture—the *modus operandi* of our miners is at fault. I do not mean to impute want of skill to our mining engineers, some of the ablest scientific scholars in Europe are to be found among them; neither do I mean to underrate the miners—they are a very capable body of men. Probably there is no trade or calling (of course I refer to the more intellectual descriptions of pursuits under those headings), in which a workman requires so much intelligence and so much time to become proficient in his business, but it is the practice to pursue a feint line of ore as long as it lasts, and to settle on a pocket, to the neglect of sinking proper shafts and driving proper levels. Those grand Old Romans who sunk into so many of our mines seem to have had an almost divine instinct as to how to go about it, especially when we consider that they worked away from their own common sense and genius without the knowledge of geology and mineralogy; or if they are not to obtain the credit of it, the noble ancient Briton, to whom no one seems disposed to give credit, and who deserves so much, must have pointed out to the conquerer these treasures of their land. Well, these old Romans, taking all things into account, went wonderfully up to their work; they were bent upon doing it, and did it, according to their light, better than we do. Undoubtedly the way we work determines a less supply of the metals in proportion to the capital employed.

It appears to be certain now that we must look abroad for a large portion of our metals, we may in payment return those metals manufactured, but the metals themselves we shall increasingly want. An advice given by a certain divine to one of his students, "Don't preach all you know in one sermon," is applicable to authors, and letter writers as well. It is impossible for us to say all we have to com-

municate on the subject of this letter in a single epistle; we shall, therefore, pass in very natural sequence to call attention to certain aspects of foreign mining districts from which we may expect to derive our supplies; and in this respect I will now only notice one department—silver. The use of silver is growing more rapidly than that of any other metals except gold and copper. It is difficult to say which of the three is used most. Confining myself to one thing at a time, let us direct attention to silver. The enormous increase in the use of this metal is most striking in France. Richard Cobden used to say that there were "more silver spoons in France than in any other country in Europe;" what he said for one purpose I will use for another. As the progress of civilisation advances this metal will be used for domestic and other purposes. It has become the fashion to drink our wine from silver tankards only; and, who would have believed it 20 years ago, our chops and steaks in the city are cooked on silver gridirons. But where is the silver to come from? It is mainly to be derived from the western hemisphere. There is silver from Utah to Bolivia, and the latter place is rich in it. The old fame of Peru is revived again. It was Bolivia that made the silver fame of Peru, Potosi was part of Bolivia when the latter was part of Peruvia. I suppose it is not necessary to answer in public the question often asked in private, "Why is that place the deposit of so much silver?" But if an answer were necessary it is at hand, "The earth is the Lord's and the fulness thereof," and there is a wonderful wisdom manifested in the arrangements of "the Great Architect of the Universe." In Bolivia alone silver enough may be extracted from the earth to supply the present wants of the world.

Let us take the mines of Caricola, in Bolivia, by way of example. Those hoards of argentine treasure which gave fame to the old Spanish province of Peru are now to be found in Caricola, in the New Republic, called after the great liberator, Boliver. From this region the most extraordinary results have been obtained in silver, the mines of Caricola literally teem with this metal. The most recent accounts from it are replete with encouraging information. The sum and substance of the last reports are that the Caricola Mines are yielding vast products of silver. It would be difficult to exaggerate these reports, vast profits are returned from these mine, and it is no exaggeration to say that, taking the whole group of mines into account, those now not fully worked afford ample means to pay their way, and will probably soon become one of the richest metallic properties in the world.—*Gresham House, Nov.* 18. THOS. SPARGO.

MINERS' CONVERSATIONS—No. V.

[*Enter another miner, called* DICK, *a companion of* BILL'S.]

Dick.—Hollo, Bill, how long hast au bin here?

Bill.—We have been here about a half or three quarters of an hour, drinking a drop of the Brewery beer, and quietly talking a little about mines' captains and other matters.

Dick.—How do you like the Brewery beer? A gentleman of this town once told me it was *spoiled water!*

Bill.—Perhaps he was a teetotaller: the beer is as good as any made in Cornwall at the price; I believe that it contains nothing but a decoction of malt and hops—no deleterious ingredient whatever. Take a glass and try it.

Dick (drinks).—Here is health to ee sose, and to all other honest men like ourselves. This is a good glass of ale, really; I wish my gettings would permit of my having a barrel of it; I think some of it would do good to Betsy, my poor wife, who is very shakey. For the last nine months, on an average, I have received only 3*l.* per month, which is very little for a family of six.

John.—You have had bad speed then?

Dick.—Yes: Do you know what the unpardonable sin is?

John.—The sin against the Holy Ghost.

Dick.—Yes: In a *religious* sense; but I mean in a worldly sense.

John.—I suppose that the world looks upon *cheating* in any of its forms as the worst sin against society. People may swear, tell lies, blaspheme the divine name, and commit almost any sin against God with impunity, if the *pocket* or property be left untouched.

Bill.—You have not yet hit the thing that I mean; it is *poverty:* nothing in the world is despised so much as that. I am now a very poor man, and endeavour to do right in every act in life, and yet no one esteems me a bit. Other men, not half so careful to do right as I am, are esteemed highly—at least in appearance, because of their money. If I were to become rich, like Capt. Teague is, I should be respected as much as he is at present; and if any calamity should reduce Capt. Teague to my level, he would become respected as little as I am.

John.—You may well say *in appearance*, for the respect is merely a *show;* there is nothin *real* in it. Virtue alone is *really* respected by most people. Do you work at Wheal Seton, Dick?

Dick.—Yes.

Bill.—At the last account I find the cost was not charged up closely, so people say. Why was that?

Dick.—That the manager might have credit for good management. I suppose; but I consider it a very bad practice to leave arrears of cost stand over from one account to another; *all* cost, including merchants' bills, should be charged up to the end of the month preceding the account-day, and all minerals actually sold should be credited to same date, that the adventurers might see their actual position. I have heard of some managers not only leaving three or four months' cost in arrear, but crediting tin or copper not raised to the surface, or even broken. Such conduct is highly reprehensible; it is, in fact, "cooking accounts." Managers or pursers committing such an imposture (if I may so call it) should be admonished, and if they repeated the offence they should be ousted from the mine.

John.—They say that the present agents at West Seton are likely to be superseded at the next meeting, which I consider very wrong, there being no valid reason for it. Capt. Teague cannot do better than they have done; he will not add to the reserves of minerals.

Dick.—It seems to me that Capt. Teague can throw any agents out of their places, partly by buying up shares, and partly by his great influence on shareholders; because wherever he enters the shares rise in marketable value, and that is what many people want who desire an opportunity to sell out their interest.

John.—Such a rise cannot but be temporary, for after a little while the *condition* of the mine, as expressed by the returns, will speak for itself, and the price be regulated thereby.

Bill.—Has it struck you that nearly all our old copper mines are worked out, and that no search is being made for new ones?

John.—Yes; it is very remarkable that everywhere, or nearly so, in West Cornwall the copper has yielded to tin, but you must not suppose that because the old mines have failed the *resources* in the Cornish earth are exhausted. I believe that copper will yet be found in abundance where it is now not *known* to exist in Gwennap and elsewhere. There is no *searching* after it; people are all after tin, lead, iron, and china-clay in these days.

Bill.—It was a very singular circumstance that in New Great Consols, previously called Great Wheal Martha, the two old companies worked for copper only, and the present company took the mine to work for that mineral; but Capt. Pryor soon found what was never before suspected—a *rich tin mine.* They now return, I believe, between 20 and 30 tons of "black tin" monthly, and they can greatly increase that quantity. Capt. Pryor is a very fortunate manager, and a trustworthy man.

John.—You spoke of china-clay just now; have you heard of the railways that Sir Morton Peto and Co. are constructing between Par and Fowey, between Par and Newquay, between Truro and Newquay, and between Burngollow and Newquay, and of their other lines?

Bill.—Yes; and a capital thing it will be for the clay producers, the mines, merchants, and for the public in general when all their progressing lines are open for goods and passenger traffic. I believe that these railways will pay a good percentage on the invested capital, but Cornishmen were afraid to invest in them. The works are pushed on with a remarkable rapidity, and will soon be completed, and the lines opened for traffic. When the "system" has been completed we shall not require many more railways in Cornwall. The St. Ives branch will be executed speedily. The third or fourth Act of Parliament has been obtained for this line, all the Acts but the last having been suffered to expire. We want a line to Helston and the Lizard Point, which I suppose we shall have, and also a line to St. Just, by-and-bye. The narrow-gauge system will also be completed between Truro and Okehampton, whereupon a great saving of time will be effected in the transit of passengers and goods between London and Truro, and places westward.

Dick.—I must now wish you good night, I must go home to see my wife. Every good husband should spend as much time as possible in his own house.

John.—I am glad to see you so considerate. But as Bill and I have begun to chat we will continue here a little longer. There is no danger in doing so, as we are only "little-drop" men. AGENT.

St. Just, Nov. 19.

MINES AND MINING DEPRESSION, CAUSES, &c.

SIR,—It requires great inducement for the capitalist to purchase into cheap securities; let the knowing ones only "rush up" the market, and the public come to the front, for "when stock is high, they buy." How frequently can it be noticed that an advance of 1*l.* per share in market value, instead of causing sellers, induces buying. Sometimes this course is judicious, but does it not seem ridiculous that the investor waits for a rise? The truth is, the want of courage to buy a stock at reduced value. For the past few months a depression has existed in the mining market (more especially). Take up a "correct price list" of (say) eight months since, and compare, Dolcoath, 70*l.* to 50*l.*; Carn Brea, 150*l.* to 52*l.*; Crebor (looking better than ever), 7*l.* to 4*l.*, and so on *ad infinitum*, and still the cry, "No buyers, at even fair rates." Is there not something more than the cupidity of capitalists at the bottom of all this? undoubtedly. Let us examine, it may not prove uninteresting. There is the drop in tin and copper, failures in Cornwall; but, something more—want of management and incorrect quotations. I take your Journal up, and see A and B quoted (say) at 2*l.* and 3*l.* per share respectively. "I want to sell," says the *country* shareholder, and writes to a respectable dealer; who replies, "I can only get you an offer of (say) 10s. and 15s. for both stocks." Indignantly, the shareholder turns to the price list; but, says the dealer, "This is not correct." Now, Sir, someone is to blame; it is not yourself, because what can an editor do? Quotations are sent, you have no time to enquire as to their correctness. But is there anything more disgusting than this state of things? it can be avoided, and if it is not we shall find that the offending party will become neglected, as they deservedly should be. I am well aware that, in what may be termed private market mines (those in which it is a matter of negociation to trade in), it is difficult to afford close figures, for the frequent reason that Mr. Dealer wants a heavy pull, charges a great price for, sometimes, almost worthless stuff, and cannot afford to buy back. Now, let me advise your readers not to touch any such. How are they to tell? why look at reports, at management and circular puffs. Without alluding to any particular mine, let me style them A and B: a capitalist requires the purchase of shares in A, gets them at 2*l.*, and in B, at 3*l.*; in instances, he would find them priced the following week—A, at 2*l.* to 3*l.*; B, at 3*l.* to 4*l.*; dealer thinks this will please. Perhaps the capitalist sees a profit, writes to dealer to sell, who informs him they must go higher; and so capitalist waits, and dealer drops the quotation. It would be much better if the quotations were:—A, 1*l.* to 2*l.*—buyers at 1*l.*, sellers at 2*l.*; B, 2*l.* to 3*l.* (closer if possible); this would not alarm capitalist, the one looks, and is legitimate, the other is untrue, and brings it own result. In procuring shares in a private mine, a difference between buying and selling must sometimes be expected (not always). A and B should not be marked 3*l.* and 4*l.*, and no buyers at 1*l.* I can suggest a remedy in inserting such, which is simple. Mr. Editor, keep a record of those who give the prices, and when a shareholder finds them false, let him know who gave them. It will have this effect—relieve you, Sir, from an unpleasant task, and shareholders could ascertain who is acting unfairly; for, depend upon it, the back page of your Journal is more vexing than otherwise. Acting on this suggestion you will, I am sure, please the holder, save the respectable brokers great trouble (of which class there are some), and simply offend those whose object must be to bring disgrace upon mining enterprise.

A few words more on accounts: it is very gratifying to find my letters did good (at least I think so)—South Condurrow accounts closer; East Lovell reports comprehensible; a stir among pursers to please the shareholder—quite time too. But we want Captain Teague to take the lead; Carn Brea and Tincroft accounts are in arrears, both good mines, but would be thought higher of, if *more* than one month's cost were brought up. Shareholders persevere, know your position while the "flag is floating in the breeze." In case of difficulty these back costs are felt. I am sure the purser is by far too sensible not to set a good example; he finds the metal to a most creditable extent, but the thanks of grateful proprietors will. I am sure, greet him if he places before them the position of their investments.—20, *Great St. Helen's, Nov.* 20. E. J. BARTLETT.

MINING IN THE LLANRWST DISTRICT.

SIR,—I am fully convinced that it will be readily conceded by a large majority of the intelligent and unprejudiced portion of the Journal readers that the letter of Mr. John Kenrie in last week's Supplement is unworthy of any particular notice. The gentleman appears to be nursing considerable animus because I stated, in defence of the district, that the neglected condition into which I had fallen was owing to the way in which the mines had been worked, and not to the want of merit in the mines themselves. The position I assumed was that if the mines, speaking in general terms, had been properly worked they must be worthless, as they were for mile after mile in extent in shabby abeyance, with very few exceptions, either through utter abandonment or heartless suspension. I stated that one of two things must be admitted—that the mines had been improperly worked, or they were worthless. If Mr. Kenrie's assumption that they had been worked with commendable energy and skill is correct, then my assumption must be regarded as incorrect, and any further outlay applied to the development a waste of money. The conclusions to which I have arrived were formed from evidence afforded by the mines themselves, pointing to their general fecundity of character, and not from prejudice against the captains who were formerly connected with the management of the mines. I know nothing of them, and, therefore, could have entertained no animus against them, nor any motives for their depreciation. I was the subject of the twofold surprise immediately on first examining the district—first, the superior quality of the mines; and, second, their delapidated condition, and the indifference with which they seem to be regarded. I wrote approvingly of the prospects of the mines, and in equally distinct terms disapproved of the way in which they had been worked. Mr. Kenrie, on the other hand, without saying a word for or against the district, contends that the agents who directed the operations were men of good ability and experience. A list of whose names he has taken upon himself to introduce to public notice, but most of whom are unknown to me by reputation even. The inference from Mr. Kenrie's action and altitude in this matter must be that the district had been amply tried before my day, by men whose names and reputations he considers are a sufficient guarantee on that behalf, and found wanting, otherwise it would be very difficult to perceive why mine after mine, extending over many square miles of surface, with very few exceptions, were committed to total abandonment. I speak freely on the subject, inasmuch as the superexcellence of the district affords me a wide latitude, and I deliberately repeat—Mr. John Kenrie to the contrary notwithstanding—that I never saw a district of so much merit in Great Britain so transparently abused and neglected as this has been. I consider myself a very proper person to make such a statement in the interest of mining, as I am located in the district, specially engaged for the purpose of redeeming one of the mines from the deep degradation into which it had been brought; and my practical reputation is at stake upon the issue, and I am quite willing, though I value it not a little, that it should be so. If I fail to establish these mines as a lucrative channel of investment upon the outlay required in their development that failure would entail upon me an amount of blame from which I should not easily recover. But if I am successful, as I hope to be, and feel confident from most substantial reasons that I shall be, whose will be the praise? Perhaps a Mr. Somebody will start up out of the ground to dispute the honour with me. It may be a fossil; there are some here, and not yet sunk very deep in the ground.

I will now take the liberty of adding, for the information of Mr. John Kenrie and others of his class, that the time is coming, and soon will come, when mining will be prosecuted more upon its merits, and when mining men will be more generally estimated by the fruit of their genius and the general results of their practical administration. It will soon come to be regarded as palpably absurd that superior, or even mediocre, mining knowledge can be best reflected from a dark back-ground, or that the absence of literary and scientific light is most congenial to its growth and fecundity. We are evidently approaching the confines of the dark ages in mining, and I, for one, welcome the advent of a brighter day.

Llanrwst Lead Mines, Nov. 18. ROBERT KNAPP.

N. ENNOR ON THE WASTE OF TIN IN THE RED AND OTHER RIVERS.

SIR,—I have said nothing on this subject for many months. I notice that others have taken it up, and gone so far as to accuse many mine agents, employed and paid by the adventurers in mines claiming tin above, of being concerned, directly or indirectly, with the squaters below on the Red River, and these writers call themselves shareholders. This looks very bad; it causes those who have money, and would speculate in Cornish mines, to stand aloof; and many, through these reports, invest in other things. In plain truth, it saddles the Cornish captains with a bad name, I do hope it is untruthful, still it is damaging to mining enterprise; but of this I know nothing, to me it is only hearsay, I leave it where I found it, but I do know that the present mode of stamping tin fine causes an enormous loss to the mine adventurers. I take Mr. Bolitho's own remarks: he admits that the squatters catch tin to the amount of 40,000*l.* worth annually. I do not expect he includes what they catch at Redruth Foundry and other places to which tin is said to be coming from the Pedn-an-drea district; I take his remark to refer to the Red River only; but I do contend that the 40,000*l.* worth referred to by Mr. Bolitho is only about one-half of the quantity that is lost to the mining adventurers above on this one small rivulet.

This certainly does appear to be a monstrous loss of tin. I may be asked how I make up the second 40,000*l.* worth. An easy task. It is admitted that the sea beach is worth 1*l.* per ton after it pays the squatters; but this is visible, and the very best of tin, but it is too small for the squatters to catch with any contrivance they have invented. Then there must be every size, from the tin seen on the sea beach down to invisible atoms. Man cannot see animalcules with his naked eye, but with the aid of a glass is convinced they are living insects, having all the necessary organs for eating, drinking, and supporting life. Then there is a great difference in the size of what the squatters catch and atoms. I shall ever contend that the fine slime tin caught by the squatter is only about half that which passes from them to the sea in visible and invisible atoms. It proves that the larger half passes forever from his grasp. We must bear in mind that the tin lost is the softest and very best, and was the first to be reduced to atoms; and I challenge anyone to prove that my views are not correct when I say that 80,000*l.* is lost to the companies above. I notice the Dolcoath return says 18,000*l.* for the quarter. This is ointment for the eyes of many; they will see that more tin goes down this small rivulet annually than Dolcoath Mine returns for the company.

I need say no more on this; to me it is quite clear that the loss is enormous. Where does it arise from? Then, the next question is a very simple one—is there or is there not any means to be used to retain this tin? I read Mr. Bolitho's remarks as to what should be done. I was pleased to see I have in my patent every point he referred to but one, and that is where he says the fine tin may adhere to the quartz sand, and after lying still for a time it is to be caught. He may be right to a certain extent, but I took a different view of it. I have often thought that tin atoms, when in contact or still, adhere to each other from affinity. I believe all substances will do so, even gold. Whoever found a 50-lb. lump of gold in holes in quartz rock? but they are often found in the alluvial layer. Query, were they grown where found from attraction and cohesion? As a proof, the Penzance Geological Society must remember the contention I had with them in Sir Charles Lemon's day, when they produced the elk horn found in, I think, Carnon stream tin works. The elk fell with its horns in the alluvial tin layer; the body was in the layer above. The horn became 50 per cent. tin, but the bones were still lime. Here is ample proof that the tin in the stone was daily dissolving and passing off in atoms. These atoms, from affinity, entered the elk's horn, displaced the lime, and filled the horn. Here is a second growth of tin. This horn, I expect, is in the collection of the society still. I asked Sir Charles for it, and he said it was somebody's private property. But most likely it is still there. This to me is quite sufficient proof that all things are ever ready to join their kindred; and I believe if all the waste from those tin works were emptied into a pond—say 12 ft. deep and 100 ft. wide, with a good length—and the water carried in a pipe to the bottom at the entrance, the line of gravitation would even cause the atoms to stop, and join each other in time; but better still if our nations and paid chemists would find a substitute for the elk's horn, and deposit it in the pond. What a grand discovery they would make of it! A pond to pay them 40,000*l.* a-year after it had passed the squatters on the Red River. After the squatters had done with it, they would be then self-supporting chemists. I let this suffice now, as I have not patience to stop for these slow coaches to come out. I must do better to make hay while the sun shines.

Turning again to Mr. Bolitho, I was pleased to find him give a hint to mine agents to stamp rougher, and make less slime; in this he hit the nail on the head; but he knows how many drones there are going about who never found a paying mine, with a continual cry that if we do not stamp the tin to atoms we shall lose it. Then I ask, who is it that loses the tin in quantity? Not the mines that stamp rough, but these croakers who stamp fine. When I observe the quantity that goes down the Red River it appears to me that the fine stampers lose over half the tin they stamp.

I have said sufficient on what they have done; the point is what shall be done to retain the tin, or will the chemist find a substitute for the elk's horn? I give my views on it as an open question, hoping some shrewd men will improve on the croakers' theory, for as they have lived so will they die. Nothing will be lost to the public if that class all die out within the nineteenth century. I say that the only quick and effectual remedy is to stamp to a larger size. Fix all grates at an angle of 45°, and let them be of four times the size of those now in use, with a coarser rough hole, say one-fourth size over those now in use, with a rough grate over, as a protection, when no tin once flashed against the grate would return again under the stamp-head, if down to the grate size. Then all that goes through the grate should pass into a jigger, not a drag, the bottom of the sieve to be of one or two sizes below the grate. The good tin will then stand in the sieve, or be in the hutch. What is in the sieve would be chiefly hitch tin. This I may here term best work. Then pass that through a reserved head or two of the stamps, and treat it differently to the coarse work passing through the stamps generally. The lighter portion from the jigger should pass off by its own accord, and through a round griddle, when all the slime would be taken from it at once, and be passed through a round buddle, and what passes out through the sieve goes to a rough sand buddle. Nothing should have a shovel put to it until it comes to be thrown out of the buddles, and three-fourths of the tin would have stopped in the hutch and jigger before, and not one-fourth of the slime would be made. Then see how this reduces the cost—full one-half. Then comes the saving of tin. I surely should retain 40,000*l.* worth out of the 80,000*l.* worth now lost. I know how the tin is lost. I said before that chiefly by fine stamping they make too much fine tin and slime. Then, no man knows the round buddles better than myself; I got them up, and used them extensively, 20 years before they were known in Cornwall. When passing these very tin mines I look on and see how they are worked: many of them carry the discharge stuff from the stamps to the buddle as it comes from the stamps. When that is done I will defy any man to prevent slime,

and even second-quality, tin from going to the lower half of the buddle. This slime, if buddled again, will still go back to a great extent. The tailings when thrown out into the rivulet contain slime, which goes off to the squatters; they know tin; they fix their frames at the angle to catch a lighter tin. Then, the frames used at the mines will catch only rough tin. The squatters know well they are working on tender ground—I might even say quicksands—and a large portion of tin they will have so long as the mines stamp low, and work slime and sand together. Less slime should be made, and that separated at once, and it should never be allowed to again mix with the sand. All slime should be sent into pits, and re-worked on buddles and frames, and then the refuse be thrown by, to stand by and gather for years, then to be sold to the squatters, or worked over again by the company. A small portion of tin might, and will, go off even in rough stamping, but that would depend upon the attention paid to emptying the jigger. Then the stamps would get through twice the quantity. Half the number of heads would do. If any rough tin went off to the squatters they would have to pay for stamping it. They would still catch tin, but it should be only what could not pay the mine company. It should not go down at such a rate as to cause it to become the talk of the country that the captains of these mines get more from their shares with the squatters than their pay is from the mines. If so, it is reprehensible. Let them take shares in the mines they bring out, and keep them. We should not then find so many old worthless mines dragging on.

I next turn to Mr. Bolitho. I think he is the right man to put his shoulder to the wheel, and help the Cornish tin mines out of the mire. He knows well that Australian and Peruvian tin is now being imported, and that Cornish smelters are the chief purchasers, and they purchase a deal of tin that is not up to the Cornish tin standard. What becomes of it? I do not expect it is carried to Pool, and sent down the Red River for the squatters to re-dress. Then I might ask him if he could not manage to smelt the tin from these mines that is thought by the croakers to require fine stamping, at a lower produce, if it could be mixed with other tin, without injuring himself? Would they not bring more tin to him than they do now, and get more money from him, with less dressing cost, and return more money to adventurers? I know a little of smelting; the rough of such ore works better than the fine.

I called at the Park Mine, near the Indian Queens, a short time since. They showed me their rough tin, and said that they got 5*l.* per ton more for it than for the fine.

I put these questions for your consideration. I consider that you could make yourself very useful in aiding the Cornish mines just at this ticklish time, and do yourself no harm. Do try what you can to keep our standing. I am ready to lend a helping hand, and will readily give my labour to any young mining company to lay out a cheap dressing-floor, with large-angle grates, jiggers, griddles, and two buddles, with no charge for patent right, to any party who are wise, and will not spend 2000*l.* in erecting stamps and dressing-floors before they see what tin they have. I have one set of stamps ready, and a second nearly so. One would have been at work some months since but for a dispute between the company and the lords as to the right of water.

I am open to put up a trial stamps with 12 heads, to be driven by water, or even by a farmer's portable engine, for about 200*l.*, and give each head 60 lifts per minute. This stamps may be seen at Wadebridge by giving me two days notice. N. ENNOR.

Wadebridge, Nov. 17.

ENGLISH MINING—PRESENT AND FUTURE.

SIR,—For the information of "Observer" or anyone else who may write under the above heading in reply to Mr. Barnard's letters in reference to the amount of silver contained in the copper ores in the eastern part of this county, or the matrix of the lode in which it may be concentrated, I would remark that it is now about 20 years since I endeavoured for some time, through the medium of the Journal, to direct public attention to the fact that several of the mines in the district were selling their copper ores containing a payable percentage of silver without any additional remuneration to the adventurer, and instanced several mines which were producing from 10 to 12 ozs. of silver per ton of ore, and sampling largely, such as Bedford United Mines, Great Sheba, and New Wheal Martha (now New Great Consols); the latter is being worked at a good profit for tin from the same description of ores and on the same lodes, and was formerly sold as low-priced copper ore at the Cornish Ticketings, and invariably purchased by Messrs. Sims, Willyams, and Co. (now Neville, Druce, and Co.) and Messrs. Vivian and Sons, the only two copper smelters who were then provided with the necessary furnaces and improved apparatus for extracting silver from copper and gossan, or any other ores, at their smelting works, as delivered from the mines in its rough state. The same process is still adopted at their works, and gives them a surplus profit on the purchase of all ores of this class; no doubt the produce would be equally as valuable for silver or tin as for copper by a proper mode of treatment in its separation.

I know nothing of Mr. Barnard or his process of extraction, but whether it pays on a small scale, as represented by him, remains to be verified. Being quite disinterested in the matter I would merely confine myself to the one particular object in view—the production of silver and other minerals contained in the ores of that immediate district, which will yield an average produce of 6 ozs. of silver per ton, as stated by him. As a convincing proof of this, specially based on my practical observance and daily experience in the analysis of various ores and mineral substances for 25 years, having had to assay for upwards of 50 different mines at home and abroad, is a sufficient guarantee of a correct manipulation in this department. If we take the run of mines eastward from Marke Valley to Devon Consols, a distance of 18 miles, including Holmbush, Great Sheba (now West Great Consols), New Great Consols, Hingston Down, Prince of Wales, Florence, Okel Tor, West Maria, Bedford United, and other mines in the locality yielding pyritic ores of this class (whether arsenical or sulphurous), I am fully convinced, and reiterate from the facts of my own practical research and general analysis of the ores, that the average is quite equal to Mr. Barnard's statement, to say nothing of any other metallic produce with which the ores may be impregnated, or closely connected with the matrix of the lode, the intrinsic value of which is often lost sight of, and pronounced by those who may be ignorant of its actual properties, or incompetent to test its true combination, to be of no value. M. W. BAWDEN.

General Assay Office, Liskeard, Nov. 18.

PRACTICAL MINING—SUGGESTIONS TO MINE AGENTS.

SIR,—In reference to this subject, I notice your correspondent, "Cornwall," has also put a string of questions, although they are of a far more practical nature than those of Mr. Ennor. Mine agents, as a rule, have been anxiously waiting to see some real improvement in both stamping and crushing, as well as in the method of boring, by the numerous inventions lately brought forward for those purposes, and would rejoice in adopting them if found effectual and economical, but until this is proved in some satisfactory way mine agents must not be blamed for not adopting every new thing put forward. In fact, very few mines could stand the ordeal of such costly experiments.

There is one suggestion of "Cornwall's" which is worthy of the utmost consideration by our engineers, and that is the *utilisation of wind-power* in all our mechanical appliances. We get this enormous power for nothing, and for this reason, probably, it is entirely ignored by our engineers, but my firm conviction is that the day is not far distant when this subject will be looked at in a very different manner to what it is at present, and, if properly attended to, will revolutionise mining, and teach the "ring" of colliery owners and coal merchants a salutary lesson. Here is a field for legitimate and important discussion. I have many times thought that if our friends Messrs. Ennor and Knapp (who have so much time for the pen) would, instead of writing such lengthy fault-finding epistles, and so frequently barren of anything useful, turn their attention to a channel of this kind, or go and discover a good mine somewhere, even if only one between the two of them, they would render some service. "Cornwall" suggests that some member of the Miners' Association should answer Mr. Ennor's questions. I may state that the members of our class are not yet quite so far advanced as to attempt the discussion of the "growth" of metals or their propagation from "seeds."

By the way, I should like to ask Mr. Ennor whether the argentiferous "seeds" were noticed by him at Old Treburgett Mine during the time he had the management thereof? because, if so, he must have been mistaken as to the rapidity of the "growth" of this particular kind, or he would have placed it carefully on one side, for I cannot for a moment suppose such a talented man as he is would have thrown away such large quantities of that matured substance called fahlerz as was soon after found in the old rubbish heaps, had it been fully developed at the time when he had the control.

"Student" wonders why the Cornish miners are so much opposed to the use of Dynamite. They are not so much opposed as appears. The fact is that the House of Commons was imposed upon by Mr. Secretary Bruce to pass a most mischievous law, which, coupled with the licenses he has also issued, acts almost to prohibition; in fact, if those absurd rules were adhered to the material could not possibly be used. It is a disgrace to the present House of Commons to allow such a partial piece of legislation to remain on the Statute Book, especially after the whole proceeding in getting it through Parliament has been made so transparent. Mr. Gladstone would considerably benefit the Liberal cause in Cornwall if he were to wipe such a blot from the Statute Book before he dissolves Parliament,

A MEMBER OF THE MINING ASSOCIATION.

RESULT OF STRIKES—LOSS OF LABOUR.

SIR,—It would be of vast importance to the industrial interests of the country if some of your correspondents would ascertain the number of men connected with the coal trade (and similar figures relating to the iron trade) who were idle in 1872 and during the present year, as well as the aggregate number of hours' work lost by them in consequence of strikes. It is reported to have been stated at the Miners' Conference, now sitting at Leeds, and representing 130,000 men, that the high price of coal was not on account of the action of the miners. But, if thousands of men relying upon their manual labour for a livelihood refuse to labour, the produce they have been in the habit of supplying must fall short, and cause a scarceness and dearth; and if the amount of the labour thus lost were ascertained it would greatly facilitate the finding of a remedy.

With regard to the general industries of the country, the short-sightedness of the men is throwing them behind those of foreign countries, and the old position may never be recovered. It is the same as in the case of two men walking together at a brisk pace if one of them stops he does not notice that he has wasted any time until he finds that his comrade, who has only continued at the same rate of speed, is out of sight, and cannot again be found.

Ashburton, Nov. 20. GEORGE SPARKE.

FRON VELLAN MINE.

SIR,—Your correspondent, "Interested," for reasons best known to himself, having evaded the question which I put to him appertaining to the management of the above mine, I should not further deign to notice his effusions but for the disparaging remarks upon the mine which he has again inserted in his letter, and which, as he pretends to know more than anyone else does of the mine, he must know to be the very antipodes of the real facts. "Interested" wishes to ascertain "whether I know the lode had changed its underlie until my father came and showed me." I cannot but feel pleased at this tribute of praise to my father; but as he has already the reputation of being a "good miner," and I have probably mine to make, it is only fair that those things which are Cæsar's should be rendered unto him.

I have now before me copies of several reports which were forwarded to the directors during the early part of last year; amongst others, one from my father, dated Feb. 22, but there is not a single sentence in it of the lode changing, or likely to change, its underlie. Then, one from myself, dated March 12, stating the "lode in the bottom of the winze seems to be changing its underlie." Again, March 14—"The lode has completely changed its underlie, and is now underlying south 1½ ft. in a fathom. . . . The lode having changed its underlie is at once an explanation of our not having yet met with it in the deep adit." The above two reports appeared in the Journal of March 14, 1872, p. 237.

Now, Sir, I ask "Interested" if the above are anything like correct? And if he wants further proof, I may tell him that my father never saw the lode with its changed or southerly underlie until nearly six months after I had left the mines. I am aware that the success which attended my management brought great disappointment to a certain clique of interested ones. This was manifest on several occasions—notably so at the time the lode changed its underlie, as is evidenced by the following extracts from the report of a would-be "interested" mining expert, which was sent to the directors June 11, 1872:—"But it is a mistaken idea to think for one moment that this is the Rhiwmwyn lode, or the lode that is to be seen on the top of the hill; there is not a thing in it to justify a man to think that it is the same lode. . . . Rhiwmwyn lode underlies north; the lode they are working upon underlies south. Levels were *never* known to change their underlie in depth in that stratum. . . . This is not only my own solitary opinion, but that of men who have spent the greater part of their life in the district." "Interested" will probably remember this report, and also know that this new-fangled theory was completely quashed by the communication that was effected between the deep adit and surface, which proved beyond dispute that the lode had changed its underlie. He also seems to make a hobby of his concluding remarks; but, withal, demurs giving instances to prove such, although asked to do so. I may, however, tell him, and without disguise, that I should be very well satisfied if all our mines were worked in such a satisfactory manner as Fron Vellan is.

In conclusion, I would beg of "Interested," if he wishes to have anything further to say, to first answer the questions put forth in my last letter; failing this, I shall treat his future anonymous effusions with the contempt they deserve.

Llanbrynmair, Nov. 19. ALFRED HARPER.

NORTH WHEAL METAL AND HARRIET.

SIR,—This sett, situated in the parish of Sithney, Cornwall, was, I find, taken up some 12 or 15 months since, and the capital subscribed privately, by a few influential London gentlemen. The necessary erections have been steadily carried on, including a new steam-engine, which was set to work six weeks ago. On the water in the former workers' deepest level, 10 fms. below adit, and 24 fms. from surface, being forked, the ends east and west were found in tin in saving quantities; and since then, on extending the eastern forebreast only 18 or 20 feet, the lode has so much improved as to contain a vein of 1 ft. wide, yielding about 4 cwts. of tin per ton of stuff. This information I have personally had corroborated by the local manager, Capt. B. Williams, and cannot be regarded as other than exceedingly encouraging. The sett is bordering on the Great Wheal Vor sett (only a stone hedge dividing the properties, and on the run of that renowned mine's chief lode. Deeper explorations are looked for with much interest in the neighbourhood, where hopes are strongly entertained that North Wheal Metal and Harriet will prove a lasting advantage to it, and a certain source of profit to the enterprising proprietary.

ONE WHO KNOWS THE PROPERTY WELL.

FORTESCUE TIN MINE.

SIR,—I lately enquired through the medium of your valuable Journal why the usual weekly reports of this mine had been for some time, and as they still are, withheld from publication. In reply to my query three parties responded—all from Cornwall. One Mr. Harris James states that the shareholders desire the suspension of the reports in order to counteract the operations of ill-disposed people who have endeavoured to depreciate the value of the shares, and the others intimate a somewhat similar reason, in the last of the replies "wicked brokers" being substituted for ill disposed persons—a stronger and, no doubt, a more satisfactory term to the writer. I am sorry to disagree with your correspondents, but I think they are mistaken, which is a mild term. The real reason has not been given by them, and the success of a reference to the office admits of argument. The reference to the shares held in Cornwall and Scotland is also not quite fairly stated, and the twaddle about the wicked brokers and ill-disposed persons is rubbish. I am perfectly satisfied as to the great value and richness of the Fortescue Mine, but I am not surprised to see the shares considerably below par when all reports of what is going on at the mine are withheld and the shareholders offered additional interest at a reduced rate.—*London, Nov.* 21. A SHAREHOLDER.

ENGLISH MINING—PRESENT AND FUTURE.

SIR,—In the interest of legitimate mining it may at the present moment possibly be productive of some public good to recur to some of the incessant vauntings of Mr. Barnard relative to his silver mania during his now somewhat extended career in the West of England. On March 29, 1872, he, in his accustomed challenging, defiant mood, writes as follows:—"It is of no use anyone attempting to deny it, the Virtuous Lady has all the elements of becoming one of the richest mines in England; and, apart from the tin and copper, there are tens of thousands of tons in the mine already known that will average 7 ozs. of silver per ton, and it is only a matter of time and money to return 500 ozs. of silver per day," when the guaranteed dividends of 20,000*l.* a year would, as a matter of course, be paid, and so on.

Soon after this, when Virtuous Lady had proved an utter and ignominious failure, the "King" and "Queen" El Dorados were sprung upon the public, and were to cast the utmost ravings on the before-mentioned "Virtuous" break down completely into the shade. "Who would presume to say that from the Queen Mine alone silver sufficient to liquidate the national debt would not be raised?" Quotations of this wild and childish description might be given *ad infinitum*, but these will probably suffice for the present.

As a climax to all this *furore*, we are now informed by Mr. Barnard himself that Mr. Doble (his own highly-trumpeted wonder of all wonders as an analytical chemist) has had the "consummate impudence" to state that Mr. Barnard must really condescend to the ignominy of consulting a professing chemist, or his last fondly cherished child of fortune must also inevitably break down. The significance of this intimation is very apparent and very ominous, and it is evident that if such a marvellously rich mine as the "Queen" is in doubt with regard to its yield of silver such comparatively insignificant mines as the Prince of Wales, Devon Great Consols, Gawton, Creber, and Hingston Down cannot possibly hold their own. The further continuation of the discussion, so far as the latter are concerned, would consequently be altogether useless. What fresh emanation next, may I ask, are we to expect from the frenzied fancy of this great, self-constituted, inextinguishable oracle of the West?—*Nov.* 18. OBSERVER.

THE "ORIGINAL CORRESPONDENCE" IN THE "MINING JOURNAL."

SIR,—We shall be glad if your correspondents having experience in rock-boring machines will continue to supply particulars on so useful a topic. Mr. Menzies last Saturday gave us some useful information, but, so far as we can gather, his experience of the Burleigh rock-drill extends only to its usefulness in quarrying. Now, in a quarry all rock-drills are easily applied, and in such positions their advantages over manual labour are at once apparent. Your correspondent "S." seems to think that a hand-drill could be supplied which may be worked by one man to advantage. We think that the most effective hand-drill is that with which we are already supplied—jumper, or hand-borer and mallet; and that any machine worked by manual power would be retrogressive. "Cornwall" beats even Mr. Ennor in asking for information, but then he does it professedly, and not in Mr. Ennor's spirit of pretention to teach the while. If your more talented correspondents will come forward and answer all these questions the Journal will then become a valuable School of Mines indeed. "Student" throws out some very useful suggestions, which we hope to see further dilated on. "A Practical Miner and Geologist" notices an absurdity or two in Mr. Ennor's former epistles, which appear to me to merit your correspondent's expression; but probably that gentleman may explain these apparent absurdities. Mr. Robert Knapp has not yet come down from the clouds. Why does he continue to render nugatory his otherwise sensible letters by such far-fetched language? "Lex" seems to be facetious, shareholders in mines having ample power to protect themselves against such abuses as your correspondent writes a rather long amusing description of. "Agent" continues "Miners' Conversations," the object of which is plainly apparent. A more clever plan of puffing up Capt. Richard Pryor has not occurred for a long time. Mr. Isaac Smith gives us a feeling that after awhile we may hope to get coals cheap and plentiful enough to be enabled to read his future letters at the fireside in comfort instead of freezing in this cold November weather. "Amateur" gives us a little more of Welsh mining. Is not this following out the same track Mr. Moreing started on last week? What a bad system of mining appears to have been pursued in Wales. We hope these two gentlemen will assist in improving matters.

Mr. J. Kenrie or Capt. Knapp is evidently at sea with regard to mining in North Wales, granite, fossils, and some other points. Surely these are questions which merit personal investigation before being written on by both these gentlemen; which of them is in error is a question very interesting to many of us, especially the younger among us. Why men of experience cannot observe carefully before writing long letters we cannot understand. "A Tin Miner" describes Fortescue Tin Mine as being a fine thing, while the parties who profess or seem to be interested give reasons for withholding reports. This appears to us a policy we do not thoroughly understand, and prefer waiting until some of the large quantity of tin is sold before expressing an opinion. "A London Shareholder" appears to take a just view of the proceedings in Rose United Mines. We do not believe the right saddle has been put upon the right horse here. The letters on East Van Mine and Wheal Mary seem to be private affairs; the first we suppose to save sending notices to shareholders through the post, and the latter giving some people a dig in the dark. This brings us to untruthful prospectuses. Why does not the correspondent complaining publish names and places, and take the measures recommended by "Caution" to secure "justice," instead of throwing out insinuations?

Mr. S. R. Cocks and Co. seem to seize the opportunity of Mr. Ennor's recent remarks about deep and shallow mines to let the world know they have a shallow "bal" to sell. The letter of "A Shareholder" reveals a queer state of things in the employment of English capital to a Sardinian mine. We wonder why people take the trouble to go into such a disagreeable climate to throw away 100,000*l.*, when they might have had so many of Mr. Ennor's fancy shallow mines for that sum, and the right of fishing in the River Camel into the bargain. Mr. Burke Ryan does well to expose such an abuse as he refers to in connection with Chontales; but we believe the Companies Act protects shareholders against such short notices. Mr. Daniel Roberts shows us very clearly how much English capital is sometimes frittered away in American mines, and "Lex" shows, as clearly, which way much more take to themselves and fly away. These abuses can never be expected to cease while English capitalists entrust all their capital to American officials, which we believe has too often been done. Some of the mining experts of that country being rather expert in many ways.

"A Shareholder" puts some pertinent questions to the Chairman of the Richmond Consolidated. We would be gratified at seeing these questions satisfactorily answered. Mr. Barnard writes much, but has done little to benefit English mining. We recollect The King, The Queen, and the Virtuous Lady, all of Barnard's bringing forth. We fear the coming progeny will be as short lived, if not an absolute abortion. We would like to see him prove that the cognomen he so readily takes unto himself—"Barnard the Quack"—has been misapplied; but we despair ever seeing Barnard transforming his wild dreams into tangible realities. Why does he not reduce some of the abundance of silver with which he fancies himself continually surrounded into bars of metal, and transfer them to the Mint? Why is he so anxious for all others to make their fortunes, and content to remain himself not too well supplied with the ever-ready riches? We have more faith even in "Barnum," the American Prince of Humbugs.

READERS OF "MINING JOURNAL."

THE "CORRESPONDENCE" IN LAST WEEK'S JOURNAL.

SIR,—I notice that "Cornwall," as well as several others whose letters appear in the Supplement to last week's Journal, have set themselves in battle array against Mr. Ennor, apparently determined to crush him; in this, however, they are not likely to succeed, for all that they have said, and all that they can say, can never be a match for his presumption. Mr. Ennor has long ago thrown down the gauntlet to everyone, irrespective of age, learning, and abilities, and with consummate and unequalled effrontery set himself up as a dictator and a teacher of the whole of the mining fraternity, of the youth as well as of the head that has grown hoary in practical mining. He has presumed to lay down rules for their guidance and to instruct them in Nature's laws. Mr. Ennor, I believe, calls himself a "practical," but will he kindly enlighten us by telling us where and in what? Whether he ever discovered a good mine, nay, whether he ever discovered any mine at all? A slate quarry, I have been told, he did, and that he was manager thereof. If he understands Nature's laws, whether he has seen enough to enable him to comprehend Nature's freaks?

From the phraseology of "Cornwall" it is obvious that he himself is not a miner, and, although he attacks Mr. Ennor, we are not to have his (Mr. Ennor's) theories superseded by a worse class of empiricism; this were to render the remedy worse than the disease. Who are those gentlemen whom "Cornwall" contrasts with Mr. Ennor, and whose writings, he tells us, are published in the "Transactions" of "the Cornwall Geological Society, Royal Cornwall Polytechnic Society, Royal School of Mines, and, not least, the Cornwall and Devon Miners' Association?" By-the-bye, this last-named institution, ever since its birth, has been struggling for help, and asking the reason why it does not receive better support from the public? Permit me to suggest the reason. Is it not because of the uselessness with which it is looked at by the mining population of Cornwall? Going from place to place teaching the rudiments of chemistry to a few children, and assuming the high-sounding title of "The Devon and Cornwall Miners' Association?" Are they miners? Are they not rather pupils from the so-called "School of Mines," and is not "Cornwall" himself one of the number? I most readily grant that nothing can exceed the usefulness of a well-grounded and thorough knowledge of mineralogy to the practical miner. Let the pen and the pick go together, and the miner will be made the better man in proportion to the amount of instruction that he receives. Let him ground himself in trigonometry, so that with ease, accuracy, and expedition he may be enable l to do and to map his own dialling, and not be subjected to the humiliating necessity of calling in some civil engineer to do it for him, as is too often the case with the managers of Cornish mines, but as well could a man be made a skilful surgeon by serving his apprenticeship with a cobbler as he could be made a miner at a school. Nay, the practice of undertaking to teach mining at a school has no doubt been attended with a prejudice rather than a benefit to mining, for capitalists being too frequently ignorant as to the necessary qualifications of a miner, have employed the pupil instead of the practical to manage their foreign mining property, and fatal has been the result.

The upsetting of the "Janin diamond apple-cart" must be still fresh in the memory of your readers. Mr. Janin, of Californian celebrity, was, as you are aware, a Freibergian graduate, and it having been reported that a diamond field to the tune of millions had been discovered, Mr. Janin, the Journal told us, was sent to inspect and report thereon; he did report, and confirmed the rumour, when it was immediately found that the ground had been "salted"—that the diamonds had been but recently placed there for the purpose of deception and fraud, but not before the designers had walked away with the sum of 36,000*l.* To discover that the soil had but lately been tampered with and disturbed was too much for the graduate of Freiberg. I knew a German gentleman—a Freiberg graduate—who was the chief manager of a foreign mining property, and who, I have no doubt, was, for anything else besides mining, a very intelligent and also a very well informed man; he could talk of mining like a book when at the surface, but as soon as he got underground he was dumb—was out of his element. Having been found to be utterly useless he had to leave the establishment. Mining, from its very nature, must of necessity be a science the most occult and abstruse. Indications are the only guide of the miner, and the nature of those indications, whether positive or negative, whether such as bespeak poverty or riches, can be learned only by practise, yet every charlatan will have his say on mining.

"Cornwall" sneers at Mr. Paffard, but whether Mr. Paffard be right or wrong in what he has advanced why do so? "Cornwall" has had his say on Mr. Ennor; why, then, does he wish to deny to another that immunity which he himself enjoys? The stone-breaker has strength, but not discretion; it can break a stone, but cannot select the good parts from the bad. It breakes and crushes the whole into a confused and promiscuous mass, whereas by employing the sledge, although the process of breaking must, of necessity, be much more tedious and expensive, the good parts can be selected by hand, and "put to pile" without the necessity of being dressed, hence the inexpediency of the general use of the stone-breaker in the Cornish mines.

ROCK-DRILL.—This instrument cannot, with any degree of advantage, be brought into general use in the Cornish mines. How can such a huge, cumbersome thing be used in a winze, a rise, or even in an end, and much less in a back pitch? Could wind, being so capricious and uncertain, be depended upon for stamping purposes? In the summer season, more particularly, would there not be as little as nothing done, to say nothing of the small amount of power—unless blowing a hurricane—that would be produced? What size windmill would it require to work with rapidity 48 heards? "Student:" This gentleman suggests the draining of the mines by power derived from dammed up rain-water instead of steam. Where in the county of Cornwall, I would ask, can sufficient rain-water be formed into a reservoir to maintain the working of an engine? or that would be equivalent in power to that of the smallest Cornish steam-engine?

"Practical Miner and Geologist:" I have witnessed too much of the caprice of Nature to venture to assert that this or that can or cannot be; but will this gentleman kindly inform us where the ores of the metals he names—particularly those of tin and copper—occur in the fossiliferous system? "Lex:" Whoever that in-

dividual may be who writes under this *nom de plume*, the description which he gives of a Cornish mine meeting is too extravagant to admit of being called an exaggeration. The greater part of his effusive description is false, and not conveyed in language the most chaste. I fancy that "Lex" is a Cornishman, for "hunks" is a Cornishism; I never heard it out of Cornwall. The word "hunks" in English seems to mean a sordid wretch—a miser. From the account given of the extraordinary gormandising at the dinner can the word refer to "Lex" himself?

It is not to be doubted that Mr. B. A. M. Froiseth has the most powerful of motives in becoming a touter for the American mines. Whatever may the real value of the mines trumpted forth by Mr. Froiseth I do not even opine—if we like we may glance at the past, and from it conjecture as to the future. Of one thing, however, I am sure, and that is—that William Eddy, who Mr. Froiseth styles "only a common miner," knows more of mining than Mr. Froiseth and all the rest of his countrymen who have had a part in foisting the American mines on the British public put together, and am very much inclined to think that he possesses a greater amount of simple, ungarnished honesty and truth. I know neither Mr. Froiseth nor William Eddy, but have seen the writings on mining of both; from that of one I know that he is not acquainted with the subject on which he writes, but from that of the other I know that he is a miner. It is perfectly astonishing that English capitalists should have invested to the amount of millions sterling in the purchase of American mines merely on the representation and recommendation of men who they had never seen, and who, although they might have been honest and undesigning, yet could never have reasonably been expected to have understood what they advised.

"Agent" (St. Just) has been putting forth his own estimate of the parties named through the medium of a pretended dialogue between two miners, but the first of his letters convinced me that it was all a feint; there is no such phraseology used by miners in common conversation. The word "*fang*," used in Cornwall, does not, as your correspondent informed you, mean to *earn*; it is used as a regular verb, and means to *receive*. Your correspondents (two of them) seem to indulge in a critique on the letters of Mr. Robert Knapp, to intimate that his language is "high flown," that he grapples with questions which he cannot master, and so on. Now, with regard to his language, I do not see that there is any particular necessity fro criticism. Certainly a little more simplicity of style might be admissible, but suppose that he has soared a little, his expressions are not inapplicable, and his grammar is good. He may possibly have probed deeper than he can follow the arcana of Nature, but his understanding will yet, no doubt, unfold itself, when he will be enabled to explain the hidden mysteries to those of a less penetrating eye and of a less comprehensive mind. Silver, if any, will be found only in the copper ore extracted from a lode, but none will be found in its waste. Mr. J. Kenrie complains, and probably with some degree of reason, of Capt. Knapp's severe strictures on Welsh mining. I must say that I myself thought that Capt. Knapp had begun with his criticisms on the native mining rather early after his arrival in Wales, but, no doubt, being fresh from Cornwall he felt his "heart grieved from day to day" at what he saw, and found it difficult to restrain himself. Capt. Knapp's telling the Welsh miners that his severe censure was intended for their good was, I should imagine, a rather stiff bolus to get them to swallow. It is, however, to be hoped that his remarks may be received in the same friendly spirit in which they were offered, that they may have the desired effect, that the Welsh miners may improve upon the same, and endeavour to imitate the Cornish. Mr. Kenrie says, "Justice imperatively demands, and I am in duty bound to say, that these miners are famous for their indnstry and practical ability, and more intelligent men no country has produced." I have seen something of Welsh mining, and as far as ability and intelligence are concerned in connection therewith, without any desire whatever to speak disparagingly of Welsh miners, justice compels me to differ widely in opinion from Mr. Kenrie. They are not to be compared with the Cornish. Probably the Welsh are the only miners that Mr. Kenrie has seen. The tools of the Welsh miner are very ill-adapted to his work; they are of the kind used in England for the breaking up of roads.—*Nov. 20.*

NATHAN JONES.

UNTRUTHFUL PROSPECTUSES—UNPRACTICAL MINING.

SIR,—I noticed a letter in the Supplement to the Journal of Nov. 8, signed "Justice." The writer evidently acquits himself of a duty, and as one smarting under a gross deception by which he had been victimised in a mining transaction. Although no mention was made of the particular mine, the analogy is so clear that it cannot fail to strike gentlemen in this part as being identical with one which was started at the time to which he alludes. If your correspondent does not refer to that one, I know of no other that bears such a comparison, and shall hope never to hear of a similar project where adventurers have been made the dupes of such flagrant and outrageous practices, for when the facts, as stated by "Justice," become known, they must seriously affect mining commerce generally, as well as individually those who were induced to invest their money by the fallacions representations promulgated in the map and prospectus. The mine referred to was brought out now nearly two years since on the principle of limited liability, with a capital of 20,000*l.*, which was raised on 10,000 shares of 2*l.* each. The promoters to receive 8000*l.* in paid-up stock.

Now, Sir, assuming that all the statements which have lately appeared in the newspapers respecting the Emma Mine are correct, I am of opinion the mine under consideration will vie with it in every respect, except for its magnitude. The boldness of design and the means resorted to in order to get capitalists to embark, were such as I never remember to have heard of before in connection with mining. In this affair the map delineated five parallel lodes passing through the sett its entire length. The one furthest south was shown to be on the very boundary mark of a neighbouring mine, and, as it was stated, underlying south 4 ft. in a fathom, so that a shaft 12 fms. from it would intersect the said lode at a depth of 18 fms. When the shaft in question was down about 4 fms., forsooth, it was discovered to be on an adjoining sett, and abandoned accordingly. That proceedure, I am informed, arose from a mistake, but if the ground had been properly surveyed, and the boundary fixed in conformity with the map issued at the time, such infringement would have been impossible. "Justice" thinks that a miserable wind-up must be the inevitable consequence of such mismanagement, and that in a few months, with nothing left for the adventurers but a second-hand engine. I am inclined to take a different aspect of affairs, and doubt not if the adventurers call a meeting, to be held in this county, and act decisively and promptly, they may get the remnant of the 12,000*l.*, and then decide upon the course to pursue with reference to moneys paid under misrepresentation.

I have just heard of an interested party in this concern who, unable to obtain any knowledge of what was going on there, determined upon visiting the mine to see how affairs were progressing. When there, everything was silent and dull, and he left none the wiser for his visit. I would suggest, when he next goes, that he asks if there are more than six men working underground, and if the paid agency is less than 30*l.* per month, or a sum equal to that required for the entire underground operations.—*Lukeard, Nov. 17.*

ANOTHER VICTIM.

[For remainder of Original Correspondence, see to-day's Journal.]

SALE OF SPARE MACHINERY AT NEW WHEAL SETON.—New Wheal Seton machinery and materials were offered for sale by auction on Tuesday by Mr. T. T. Whear, auctioneer, Camborne. There were altogether 450 lots which went under the auctioneer's hammer, including a 45-in. cylinder pumping engine, and a 25-in. whim-engine. The whole of the lots were sold, excepting the two engines, at highly satisfactory prices. The engines were reserved in 600*l.* each, and the last bidders will have the option of taking them in the reserved price for a week from the date of sale; 11-in. rods fetched from 11d. to 1s. 4d. per foot, according to length and condition; 8-in., 9-in., and 11-in. plunger poles from 8s. to 15s. per cwt., pumps from 5s. to 7s. per cwt., matchings of various sizes to about the same price, windbores and H and top door pieces ditto, faggoted and rolled strapping plates from 8s. 6d. to 9s. 1d. per cwt., ⅝ths chain from 13s. 2d. to 14s. 3d., capstan rope 20s. per cwt., stuffing-boxes and glands 15s. per cwt. downwards, balance-bob 19s.5s., old borer steel 17s. 9d., 11-in. and 12-in. buckets from 12s. 3d. to 15s., old boiler and tube 49*l.*, old brass 8¼d. per lb. The sale throughout may be characterised as smart and sharp, and the competition keen, there being buyers from Plymouth to the Land's End. New Seton is still to be worked, although on a reduced scale.

POLDICE SALE OF MATERIALS.—The 80-inch engine from these mines was sold by private contract, before the auction, to be delivered at Restronguet to Mr. John Sims, engineer, of Redruth, on behalf of a gentleman in Scotland. A short time since Mr. Sims bought by private contract the 85-in. engine from the same mine for a company in Scotland. The 65-in. and the 26-in. engines are, we believe, not sold. The public sales for odds and ends fetched about 1200*l.* The entire sales, public and private, realised about 12,000*l.*—"A Shareholder" writes:—I believe we have realised hundreds if not thousands of pounds more from materials by selling them by public auction instead of selling as a "going concern."

SALE OF WHEAL LUCY MATERIALS.—The whole of the plant and materials (including pneumatic stamps) of Wheal Lucy Mine, near Hayle, were offered for sale by auction by Mr. John Thomas, on Monday, and were bought by Mr. Lanyon, of Redruth, for the sum of 830*l.*

CORNISH MINE SHARE MARKET.—We are glad to report that the Share Market has during the week worn a decidedly better aspect. There is an improved demand for all kinds of shares, and prices have had a good rise in some mines, although we have heard of no discoveries in the mines themselves, shares having advanced slowly through a greatly increased disposition on the part of the public to speculate, and the scarcity of shares at the present low quotations. On the whole, the prospects of Cornish mining seem ideal more favourable, for not only is the tin market steadier and money easier, but the price of coals will, it is believed by many, soon have a drop, and labour is again becoming plentiful. The exodus of Cornish miners to America and other places seems to have considerably diminished, and the title is turning homeward. It is a known fact that very many across the water would gladly come home if they only had the wherewith, while several are working their passage back, and others, not having this opportunity, and being unable to gain work in the country, are, it is stated, almost starving, so that it is probable our mines will soon be again filled with men at reasonable wages, and thus will be afforded a better chance for adventurers and speculators.

The following are the closing prices:—Carn Brea having been freely dealt in are improved to 62, 63, at which they leave off firm, the buyers of these shares evidently entertaining a better opinion of the mine and its financial position than did a gentleman at South Frances meeting, who was full of pity for the unfortunate (?) shareholders who had to take up a dividend of 1*l.* per share, which he said was not earned. Cook's Kitchen is in better demand, several shares having changed hands at 12 to 13. A moderate business has been done in Dolcoath at the 51 to 53. East Basset, 13 to 14; East Pool, 7½ to 8, firm; East Lovell, 10 to 11, nothing doing; Great Wheal Vor, 3 to 3¼, quiet; North Roskear, 3 to 4. Pensnruthal more dealt in at 22s. 6d. to 25s. A little enquiry has sprung up for Providence shares at 6 to 6½. Rosewall Hill rather easier at 19s. to 20s. South Carn Brea have been largely dealt in at fluctuating prices, leaving off 3½ to 3¾. South Condurrows have been in better demand, and have improved to 4¾, 5¼. South Croftys have advanced (since the meeting on Monday, when a profit of about 300 was shown on the three months' working) from 17, 18, to 57½, 30. South Dolcoath, 2¼ to 2¾, quiet. South Frances advanced from 4, 5, to 11, 13; a little business has been done. St. Ives Consols, 6 to 6½, quiet. A fair business has been done in Tincrofts, and shares, which have been sold as 37½, are now marketable at 40½ to 41½. West Basset in demand at 7 to 7½, firm. There has been a better feeling in the market for West Frances shares, which have advanced to 9, 9½. West Setons, in consequence of the expected change in the management, have had a rise of 20*l.* per share, and are still in good demand at 47½ to 50. West Tolgus, 27 to 29; the mine is said to be looking well. Wheal Grenvilles have advanced from 3, 4, to 7¼, 7½; a good business has been done in shares between these quotations; we hear that an important improvement has taken place in the 140 fm. level. Wheal Jane, 2¾ to 2¾, quiet. Wheal Kitty (St. Agnes), 10 to 10½, steady; Wheal Seton, 22½ to 25, quiet; Wheal Uny, 2¼ to 2¾.—*West Briton.*

Meetings of Public Companies.

LITTLEDEAN WOODSIDE COAL COMPANY.

The second quarterly general meeting of shareholders was held on Wednesday at the Town Hall, Cinderford,

Mr. EDWIN CRAWSHAY in the chair.

Mr. J. M. JOHNS (the secretary) having read the notice convening the meeting, the CHAIRMAN read the directors' report, showing the output of coal, profits realised, and recommending a dividend for the last quarter ending Oct. 31 at the rate of 5 per cent. per annum, which was unanimously adopted. The engineer's report was taken as read. A vote of thanks to the Chairman and directors brought the meeting to a close.

BAGWORTH COLLIERY COMPANY.

The first ordinary general meeting of shareholders was held, in accordance with the requirements of the Companies Act, 1867, at the offices of the company, 22, Great Winchester-street, on Wednesday,

Mr. WALTER ARMSTRONG in the chair.

The SECRETARY having read the notice convening the meeting,

The CHAIRMAN first proceeded to say that the meeting had been called in compliance with the requirements of the Act, but as the company had been in existence so short a time the directors had no balance-sheet or accounts to lay before the shareholders. He had much pleasure, however, in stating that had they to do so the figures would show most satisfactory results, so much so that the directors felt justified in declaring the very handsome interim dividend of 30 per cent. per annum, which would be paid next week. The company took formal possession of the colliery on Aug. 1 last, but in the following fortnight there was little or no work done, owing to the change in weighing the coal from the customary ton to the standard ton, as required by Act of Parliament. Pending the adjustment of this question the colliers refused to work, consequently in the three months ending on Nov. 1 the actual working of the colliery covered a period of little more than 10 weeks. In that time the net profits had been about 4500*l.*, or at the rate of over 42 per cent. per annum, after allowing for every expense. The paid-up capital of the company is about 42,500*l.*, and the proposed interim dividend would amount to about 3200*l.*, leaving 1275*l.* undivided profit in hand. The whole of the purchase-money was paid on Aug. 1, before the property was handed over. The preliminary expenses were under 300*l.*, and there were no liabilities unprovided for. The current month's working was better than any of the previous ones, and owing to the judgment and good tact of the managing director they had comparatively no trouble with their men, and there was every prospect of the directors having a most satisfactory balance-sheet to produce at the close of the year, when it was intended to make up the accounts, in order that future meetings might be called half-yearly, in January and July.

The CHAIRMAN, in answer to enquiry, stated that it was intended nevertheless to pay interim dividends, but, as in the present instance, the directors would take care to retain an ample margin of undivided profit. Several other questions were asked, and answered satisfactorily, and the proceedings were closed with votes of thanks to the directors and managing director.

GREAT WESTERN COLLIERY COMPANY.

An extraordinary general meeting of shareholders was held at the Westminster Palace Hotel, Victoria-street, on Tuesday,

Mr. DAY, in the chair.

Mr. SPEECHLY (solicitor) read the notice convening the meeting, the object of which was to sanction the agreement for the purchase of the Ty-Mawr property, and for the purpose of authorising the raising of the capital necessary to complete such purchase. The reports of Mr. Henry Briscoe and Mr. John Williams were submitted.

Mr. H. BRISCOE, the general manager, reports—The Ty-Mawr property has an area of about 51 acres, and is estimated to contain about 2,000,000 tons of steam coal and a certain quantity of No. 3 coal, variously estimated at from 15,000 to 20,000 tons. The latter is now being worked up the Great Western shaft, and is included in the sales. A profit of about 10s. a ton is obtained upon it, and over 10,000 tons have already been worked. There has been expended upon this property, in sinking and providing the necessary accommodation for a colliery, a larger sum than this company is to pay for it. The shaft is suitable for sinking to steam coal, and the surface accommodation is certainly equal to that at the Great Western Colliery. The Great Western, by deepening the Ty-Mawr and one of their own pits, will be able on reaching the coal to work it from both places, and open up the colliery in exactly one-half the time it would be possible to do at one place, and send exactly double the quantity of coal to market. Within the last few weeks the steam coal has been proved upon a property immediately adjoining Ty-Mawr to be of good quality and thickness, and it is scarcely necessary to say that mineral property in the neighbourhood has, in consequence, largely increased in value, and it is not probable that any steam coal, with access to railway, could now be obtained in the neighbourhood at such low royalties as are payable at Great Western and Ty-Mawr.

J. WILLIAMS, Oct. 17:—Assuming that there are from 15,000 to 20,000 tons of No. 3 coal at Ty-Mawr Colliery, and that your company is to have a lease for 60 years of that seam, with the present shaft and all the lower measures, at a dead rent of 100*l.* per annum, a royalty of 9*d.* per ton of 2400 lbs. weight, and a wayleave of 1d., with the reservation to the lessors of the upper seams, and liberty to them to use the present shaft as an upcast but not a winding shaft, then I think your company may fairly give 17,500*l.* for the same. I can go further, and say, in my opinion, it would be a very desirable purchase by them, for it would be a great boon to have more sliding accommodation, which this purchase would give them, besides which I look on the Ty-Mawr Colliery as forming the key to adjoining properties which would be hereafter worked to advantage by your company.

— Nov. 18:—I assume, of course, that all proper provisions will be inserted in the lease proposed to be granted to the Great Western Collieries Company, and that the surface rights to work the No. 2 coal will be clearly defined before the terms of the lease are finally settled.

The CHAIRMAN said that as they had been good enough to elect him their Chairman, he would explain the reason they had been called together, although the notice convening the meeting, which Mr. Speechly (who had kindly undertaken to act as their solicitor) had just read, had given them very complete information on the subject. The agreement had now assumed a form which enabled them to discuss it, and for that purpose would be read to them if they desired it. The agreement was for a lease of 60 years of the No. 3 Rhondda seam under the Ty-Mawr farm, at 9*d.* per ton royalty, and of all the minerals below that seam. It also conferred certain surface rights which would be of great advantage to the company. There could be no question whatever as to the desirability of carrying out the proposed arrangement, but the principal reason that the shareholders were called together was that it should not afterwards be said that the directors were acting without the full sanction of the company. In October the directors, acting entirely in the interest of the shareholders, convened a meeting at the shortest possible notice to authorise an agreement which they considered to be urgent, and calculated to prove advantageous to the company, but they had since secured an extension of time so that they could thoroughly discuss the subject before coming to any decision. They had had the opportunity of considering the report of Mr. John Williams, and they would no doubt agree with the directors in thinking that his advice might fairly be taken. They had extracted 10,000 tons of No. 3 already, and they quite believed that there might be 15,000 or 20,000 tons more. But it was not for that coal alone that they were going to purchase; their other object was to secure the surface accommodation which the Ty-Mawr property would afford; the property would also be the key to a large amount of surrounding property, which in the ordinary course of things would have to be worked by them. The property contained the steam coal under it, and they also wished it secured to facilitate the getting of the steam coal under their own. There are three shafts—the upcast was not fit for raising coal, and the two other shafts were about 180 yards deep. They proposed to sink No. 3 shaft, and to utilise No. 2 or Calvert's shaft for raising all the coal from No. 2 and No. 3 seams. The No. 3 shaft would be down much earlier than the new shaft. He would remark that sinking down to the No. 3 seam was costly owing to the nature of the rock. The sinking of the new shaft would under the most favourable circumstances take from two to three years, but by securing the Ty-Mawr shaft they would have the two shafts at once. The Ty-Mawr shaft is 180 yards deep, and they would thus have their parliamentary two shafts down, and would be ready to raise their steam coal within 18 months, for they must remember that in that case as soon as they had the No. 3 shaft down to the steam seam, they would have the opportunity of raising the steam coal, which would be two years earlier than they would otherwise be able to do so. It was for the shareholders to consider whether the advantages to be secured justified them in purchasing the property for 17,500*l.*, for as he understood they had no alternative but to accept or refuse at that price that would be the amount required, and that led to the question as to the raising of the money. If they decided not to purchase the property, no expense will have been incurred beyond the cost of the draft agreement, but if they determined to purchase they would have to raise the necessary funds. For this purpose several propositions had been before the directors, but there was not one upon which they were unanimous: it would, therefore, be for the shareholders to determine upon the course to be adopted. The first proposition was to issue debentures bearing 10 per cent., repayable by instalments at three, four, and five years; the second was by the issue of shares at par, with dividends deferred for two years; and the third was for the issue of shares at the highest price at which they were likely to float—say, 3*l.* per share. They thought it undesirable to create any new stock for so small an amount as 17,500*l.*, and he considered, moreover, that it should always be a principle in raising additional funds to see that the interest of those shareholders who could not take up their quota of new shares was protected. It was for this reason that he was favourable to the issue of debentures. He calculated that in three years they would have got down to the steam coal, and therefore be well able to deal with debentures, for although he did not at all believe that coal would continue at its present price, he thought that considering the constant extension of our various branches of industry, and the constantly increasing use of coal, they need never look forward to the time when their steam coal could not be worked to a profit. The question of the mode of raising the capital, however, would be for subsequent consideration, and for the present he would merely propose that the directors be authorised to complete the purchase of Ty-Mawr property.

A SHAREHOLDER enquired the names of the vendors, and who were the Messrs. Briscoe and Wood named among them?

The CHAIRMAN said that Mr. Briscoe was their manager at Pontypridd, and Mr. Wood was their secretary. He would make no comments upon the matter.

Dr. GILLOW, having confidence in the directors, had pleasure in seconding the resolution. The way in which the matter had been brought forward was extremely unsatisfactory, and it could not fail to shake the confidence of the shareholders to be told that two of their paid officers were vendors. If their paid servants were not to make the interest of the company their first interest he did not know how business could be successfully carried on. He was willing, however, to believe, as the directors suggested, that their manager and secretary were not aware that they were acting unfairly, but hoped no similar mistake would hereafter be permitted.

A SHAREHOLDER enquired whether the nature of the arrangement through their officers would not render the company liable to be attacked in the Court of Chancery by any individual who might feel dissatisfied?

Mr. SPEECHLY said it was impossible to state whether the company would be attacked in the Court of Chancery, as anyone could file a Bill about almost anything, but he believed that no attack would be successful; and, as the result of having taken counsel's opinion upon the subject, he might say that he thought the matter would be free from objection hereafter.

The CHAIRMAN observed that, as to the officers of the company, the directors felt very much hurt by the way in which they had acted, and the shock which the confidence of the directors had experienced in the matter would make them very watchful hereafter as to the dealings of those employed by the company.

The resolution was then put to the meeting and carried unanimously, and after a brief discussion it was resolved, upon the proposition of the CHAIRMAN, seconded by Mr. SURTEES, to raise 20,000*l.* by the issue of debentures, bearing 10 per cent. interest, and repayable in three, four, and five years.

The usual complimentary vote of thanks to the Chairman terminated the proceedings.

RICHMOND CONSOLIDATED MINING COMPANY.

The third general meeting of the shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday,

Mr. JOHN ELLIOTT in the chair.

The notice calling the meeting, and the minutes of the last meeting, were read by Mr. THOS. W. HALL (the secretary). The directors' report, which was published in last week's Journal, was taken as read.

The CHAIRMAN said that the minutes which they had just heard read recalled to his recollections that at one time the directors proposed to raise the additional capital, which was required by a much more onerous method than was ultimately adopted. He thought the directors might claim as a financial success the absolute carrying out of the resolution by which the shareholders empowered the board to raise the money, and supported the company under the adverse circumstances in which it stood at that time. He thought it right to mention that the suggestion was really due to Mr. Haggard, of the firm of Haggard and Hale. At the very time that the money was raised at par the shares stood in the market at 4*l.*; and Mr. Haggard's suggestion was that they should give the advantage to those who took the first 5000 shares of taking the next 5000 at par, with deferred payment. That, of course, was only a bonus in the event of the property turning out successfully; and it certainly induced a sufficient number to come forward and subscribe the capital, which was really the means of redeeming the company from the position in which it then stood. At the time of the last meeting everything certainly looked very black; the property had been seized, and even the ore which had been taken out was under replevin, and they were threatened with a suit which, if successful, threatened the great mass of ore which had been discovered, and which the Richmond Company claimed. At that time he explained the position, and he would now again give a short summary of how matters then stood. Under the mining laws of America there were several descriptions of "location;" amongst others, there were what was called a "surface location," and also a "mining right." This company held its property under a "mining right," and that, under the law, gave them the privilege of following the lode to the extent of the ore which was discovered. The lode took a sudden turn at an angle of about 45°, and ran under the surface location of the "Look-Out," which then belonged to the Eureka Consolidated Company. The Eureka disputed this company's right to follow the ore, and brought an action to recover even the ore which was taken out. That action was tried at the Courts at Eureka at an enormous cost to this company; indeed, he was told only that morning that the law costs had amounted to $60,000. It was unfortunate that they should have gone to law over a thing which might have been settled by arbitration. The effect of that suit was that seven of the jury out of the twelve were in favour of the claim of the Richmond Company; and as, by the American law, it was necessary to have a unanimous verdict, the trial really resulted in no verdict at all. All their lawyers assured the directors that the Richmond Company was sure to win if they went on with it, and he himself, entertained no doubt whatever on the subject; but the difficulty of getting a verdict in America was so great that the directors were not inclined to run the risk, and as an offer was made to compromise the suit entirely by selling to this company the "Look-Out" location for 17,000*l.*, he and his colleagues thought that, in the interests of the shareholders, it was the best course to adopt. (Loud Cheers.) He was very glad to hear that the shareholders approved of the course which had been adopted. The directors had a very long discussion on the subject. Several shareholders urged the board to go on at all risks, while others were anxious to compromise; and after consulting a great number of influential shareholders, many of them Americans, experienced men, the result of the discussion was that the directors accepted the offer for a compromise. What was the result? The expenses at the time of the compromise were over 20,000*l.*; and even if the Richmond had obtained a verdict against the Eureka Company it was impossible to recover anything like the costs, and even if they recovered anything like the taxed costs the Richmond would still have been more money out of pocket than in. Besides this, the suit would have occupied 12 months, and during the time the mine would have been virtually shut up, or working under adverse circumstances, and the company would have been much worse off than now. (Hear, hear.) There were a few points in the report which might, perhaps, need some comment. The directors had kept the shareholders so fully informed from time to time of everything which had occurred that there was really very little to add to the information now in their possession. It had been the policy of the board from the beginning to have no secrets, and they had told the shareholders candidly everything which had occurred, good or bad—(cheers)—and on occasion of difficulty the directors had called in the principal shareholders, and asked their advice before coming to any conclusion. (Cheers.) Mr. Clarence King, from whom a report had been received, which was sent to every shareholder, and of whose high standing and character the directors had a most satisfactory account, was a gentleman who occupied now a much better position than when he made the report, he having been chosen one of the three Commissioners of the United States, to whom all engineering matters were referred; he was a gentleman whose position was of immense use to the company; in fact, without Mr. King he did not know what the position of the company to-day would have been. Mr. King had drawn up a report giving the geological data and the mineralogical data—the whole data, in fact, regarding the origin of the lode, the circumstances surrounding it, and the prospects of the property in the future. The directors sent the report out in March last. One of the most satisfactory features about this company's mine was that all the predictions had been borne out, and many of them more than borne out, by the results. At the time the action was pending the amount the ore in sight was estimated at 87,000 tons, and fault was found with the estimate by men who had been out there. Indeed, some of them said that Mr. King had not allowed sufficient for the depth of the ore, and so was really to that extent below the mark; however, that was not a thing which he could find fault with, for in the generality of cases the experts had erred on the other side, especially on the continent of America. (A laugh.) But everything which Mr. King had stated had been carried out by subsequent facts. In estimating the value of the ore in sight he took it at 40 dollars per ton, whereas the actual result was 53 dollars 35 cents per ton. The great point at issue was whether we had got a true lode. If the apex of the lode was not on our side of the hill there was no right to follow through the Eureka Company's surface location, but since the date of Mr. King's estimate they had followed out the lode beyond the surface location boundary, and gone into another district, and obtained an area 1500 ft. long. A letter received from the superintendent that morning mentioned that they were now down 40 ft. below the point where Mr. King formed his estimate of 87,000 tons in reserve. Two or three months after that Mr. Corrigan, who had heard certain rumours from this country, which he stated were Stock Exchange lies, to the effect that they were working the mine from scrapings, said that they had better call Prof. Price in; this was done, and he re-measured the reserve after two months' working, and he put the reserve there at 80,000 tons, although there had been 12,000 or 14,000 tons taken out in the interval. Since the working re-commenced they had gone down at least 90 ft. in a solid ore inside the Lisette tunnel, another shaft was being sunk outside to meet this. He would presently read a letter from Mr. Probert, which was very satisfactory, and would show what they might expect when the two works met each other. There was this important fact that the reserves were vastly increased by the exploratory works, and he believed that those reserves now stood much better than ever. He would call attention to the fact that in the prospectus the reserves were estimated at 20,000 tons, but 25,000 tons had already been taken out, and yet there were 80,000 tons still in sight. (Cheers.) The profit value of the reserves in sight had been estimated at a low figure, and put at 3*l.* per share; he believed that, if they went into a calculation, it would be found that it was nearer 7*l.* or 8*l.* per share. Then it must be borne in mind that there was a great portion of the surface still unexplored. Mr. King, in his report, particularly pointed out that, large as the developments are which had been made, yet they occupied so small a surface that the whole of the Tip Top was virtually unexplored, and it was probable that the ore they were now working upon was merely the outcrop of a large amount below. (Cheers.) Therefore, there were all the prospects of the additional mining ground, in addition to the ore which they had really discovered. (Cheers.) There had been a great many unpleasant things said, and a great many adverse reports circulated about the company, and, as he thought, very unfairly. (Hear, hear.) The directors had done their best to satisfy all the shareholders, by supplying them with every information just as it reached this country; beyond that, all the accounts and books had been laid open, and every letter sent to the board by shareholders had been fully answered. He had no doubt many of the attacks had been deliberately made for a purpose. It had been said that the cable telegrams were of a sensational character, and got up for the purpose; he could only say that no cable telegram had ever been published, except it was a copy of the real message which was received. Referring again to the reserves, he expressed his opinion that the last four months had added at least 30,000 or 40,000 to the reserves; and, therefore, on that point there was no ground for the attacks which had been made. Then it had been said that the company should not have paid a dividend upon the present occasion. Why not? (Hear, hear.) It was true that a small loan had been borrowed, but it was with the intention of converting it into debentures; that, therefore, should really be considered as an addition to the original capital, because if it had been converted into debentures that would be really the case. It was impossible to carry out the original intention, and, therefore, the full amount of 30,000*l.* remained on loan up to the full time, when the dividend of 5*s.* per share was paid; but the directors did not pay the dividend without paying 12,000*l.* off the loan. The directors had at that time paid off the whole of the awful law expenses, which amounted altogether to 24,000*l.*; and also 17,000*l.* for the Look-Out location; and there was 19,000*l.* of profit left, out of which the directors declared a dividend on Oct. 15. (Cheers.) He then referred to and answered some minor complaints that had been made in various quarters, and said that if any gentleman in the room required any further information he should be most happy to

afford it to the fullest extent. He had in his hand a number of extracts from valuable and interesting letters written by Mr. Probert, and no doubt it would be interesting to hear some of those extracts read. They were as follows:—

June 4.—The bullion now averages about $220 to $220 (silver and gold), which sounds low after the $300 bullion we were getting in April; the ore then was rich in gold (2 ozs. to 3 ozs. to the ton daily), poor in lead, and rather low in silver, requiring 6 to 6½ tons to produce 1 ton of bullion. Now the ore carries less gold, but more silver and lead, and from 4 to 4½ tons gives 1 ton of bullion. The profit, therefore, is quite as large in the working.

July 1.—Last month (May), $40,000; for the current month (June), $55,000; it must be gratifying to your shareholders to hear of such profits from two furnaces. I know of no debts outstanding, and you will see by the accounts that the working expenses have been much reduced under the present *regime*. The promised railroad still lags, and I am losing confidence in the completion of the scheme, though it is not dead. There is one encouraging item to communicate, which is that a good seam of coal has been struck at a place called Pancakes, about six miles south of this place. Specimens I have seen are nearly equal to the Green River coal, which is used on the Pacific Railway, and the owners of the mine are sanguine that they will be able within a year to supply coal and coke to this place. I am somewhat sceptical as to the coal being really fit for coking, but experiments will shortly be made to test its suitability. The ore you obtained from the mine is quite as high a grade as formerly; the bullion averages $230 (silver and gold), and the lead is worth about $85 at San Francisco or Salt Lake, or $120 at New York (say, bullion $300 per ton, deducting freight), and as 1 ton of bullion is obtained from 5½ to 6 tons of ore you will see that the latter is handing over $50 ore. We have got 75 per cent. from Germania Works, and ought to realise 80 per cent.

July 12.—M'Ghee is really a genius in smelting, and to him is due the credit for the successful run this summer. We are having a road graded for delivering the ore from the north-east slope of Ruby Hill, which will effect a saving of $2 per ton in mining and hauling. The ore now being received from the mine is even better in quality than formerly, containing a sufficiency of lead for smelting, and over $50 in silver and gold. If the ore only continues in depth of the same quality, the Richmond may rival the Comstock lode, for all the indications are certainly those of a deep seated and permanent vein. I quite agree with you as to the value of a series of borings to explore not only the Tip Top, but other parts of the ground.

July 18.—The Germania Works accepted 24 out of 28 shipments of 10 tons each, and these yielded 78½ per cent. of the gross value, payment being made within 20 days in gold. The most we ever got before was 75 per cent., and this only recently, in former days it was only 70 per cent. The ore continues of excellent grade, that smelted at our own furnaces yielding $63 (with some purchased ore), $53 being the result from hired furnaces. It is important to provide funds for the erection of separating works and handling of bullion. The saving to be effected is enormous on the large transactions we are engaged in, and wishful as I am to see the shareholders have an early dividend, they will themselves see that it is against their interests to absorb everything that is in hand. About 10,000*l.* should be appropriated for opening works, and from 3000*l.* to 5000*l.* for the purchase of mining claims of good promise in the immediate neighbourhood.

Sept. 4.—Ill for weeks with lead sickness; for six weeks not free from pain. Nearly all the staff ill; M'Ghee obliged to leave for a fortnight, aising from deadly fumes of lead and arsenic. This is a question which must engage the attention of the board, if only for the health of the men; but beyond this there is the question of economy, there being a great loss in the dust and fume. A large flue chamber will have to be constructed, in which the furnace dust and gases may be allowed to settle. This cannot well be done till the spring, will it will be advisable to suspend operations for at least a couple of months. We are now getting our assay values allowed. I succeeded in getting the sale of the 120 tons cancelled, in which the loss would have been from $300 to $400. I think I shall be able to show you that a saving of $10,000 per annum may be effected. There will also be a large reduction in the amount required for running capital. The company could then separate gold and silver, sell there at once, and hold lead in reserve for a favourable market, and, when sold, form sources of quarterly dividends. Their advances to the extent of $200,000 per month, for which we are now paying 12 per cent., would be unnecessary. The first cost recouped in one year by saving of entered ore smelting 140 to 150 tons per diem. Prof. Price was two hours in the mine.

Sept. 22.—The men are developing well a shaft, or rather winze, now down 50 ft. below the level of the inner extremity of the Lizette tunnel, and is in ore all the way. At the depth of 50 ft., that is at the present bottom of the winze, a drift has been run off northward under the Lizette tunnel a few feet, and in this there is a fine body of rich carbonate ore, which gives promise of continuing downwards and northwards. Other explorations have have suspended in order to open that part of the winze into which the Lizette tunnel penetrated, make tracks for the cars, and a chamber for engine about to be removed from the old hoisting works to this point. These works, as well as a new dump and ore bins at the mouth of the Lizette tunnel have now been mostly completed, and explorations to the southwards and eastwards of the mine will soon be undertaken. The chief work now on hand is the sinking of a new outside shaft, which is intended to be the principal working and hoisting shaft of the future. It will pay best to continue at present with three furnaces, these giving a larger proportionate profit; 150 tons a-day is enough to take out of the mine to give time for proper timbering and due assortment of ore. I have satisfied myself by close observation of the smelting processes at the different furnaces at Eureka, that smelting at a high temperature (which is absolutely necessary to smelt rapidly) is very wasteful.

Sept. 29.—The Richmond furnaces show a profit of $18 per ton. M'Ghee shows smelting expenses reduced during August to $13, and total running expenses to $21, and now we have three furnaces in blast the result will be still better, and the profits larger than ever. You must not suppose, however, that the addition of a fourth furnace would give improved results in the same ratio. Three furnaces give full occupation to a certain staff, four would require a disproportionate increase of men, some of whom would not be fully employed, while the mine in its present state of development would be strained and worked to disadvantage to supply the ore. If the developments continue till we can see six or seven years ore ahead then the question of additional furnaces may well be entertained. Collecting data as to site; will enquire at New York.

Oct. 16.—I propose the erection of a calciner or reverberatory furnace for preparing our lead, necessary in consequence of large deductions for dross at New York, amounting to 12 per cent., occasioning a loss of from $10 to $15 per ton. Accounts from the superintendent continue very satisfactory regarding the development of the mine, and the weekly returns will have sufficed to show you that the furnaces are doing well, and the profits will be larger than heretofore, inasmuch as no outside smelting has been done of late. I hear that we have declared another dividend, which will be very acceptable to many, and I trust there will be a good Christmas-box for them again when the season comes round. There is one thing, however, I would beg you to keep in mind, and that is that it will not do to be without a considerable reserve fund or capital in hand for the purchase of any good mine that may be in the market unexpectedly. I say nothing of capital for the refining works, which I take for granted will be forthcoming if wanted.

Oct. 29.—Mr. Corrigan has succeeded in negociating a contract for charcoal at 30 cents per bushel, and when you recollect that 1 cent per bushel on 120,000 bushels per month amounts to (say) 3000*l.* per annum, you will see that he has rendered a signal service to the company. A favourable contract has also been made with Mr. Harch for hauling ore at $2 per ton in summer, and $2½ in winter. I have already cabled you that the mine is developing magnificently, and I have really been astonished at the amount of work done during my absence. I have been lately occupied in getting a calcining furnace erected, and hope to see it started before I leave for England. Mr. King will probably be here within the period of my stay, and will examine the mine again.

Having briefly commented upon and explained some of the matters referred to in the above extracts, the Chairman went on to say that the directors hoped soon to have another report from Mr. Clarence King, which would give the shareholders still greater confidence in the company. In conclusion, he moved the adoption of the report and accounts.

Mr. GEO. HOPKINS seconded the resolution. He said that, notwithstanding the interruptions which had occurred during the year, caused by the monstrous attacks of other people upon the property, they had made a profit of 40,000*l.* in round numbers. How had they dealt with that 40,000*l.*? Some shareholders had expressed an opinion that the company ought not to pay a dividend whilst it was in debt. Now, he looked upon that as absurd. Every company in this country—for instance, the great railway companies—were always in debt. The amount which was owing, although really not debentures, took the place of debentures. Out of the 40,000*l.* odd the directors had paid 4036*l.* interest on debentures; they had set aside 4000*l.* towards the diminution of the expenses of defending the mine; they had set aside another 4000*l.* in writing off the construction accounts; and they had set aside another 8000*l.* as a general reserve. That made, in round numbers, a total of 20,000*l.*, so that really half of the profits had been applied in reduction of these extra expenses. Was it, therefore, unreasonable to divide the other half amongst the shareholders? (Cheers.) Some people seemed to think that the last thing which the directors had to do was to declare a dividend. (A laugh.) He did not know whether the shareholders subscribed simply for the luxury of paying calls when they became due. For his own part, he must state candidly he was very anxious, after two years of disappointment, during which the property was attacked in a most unscrupulous way, and the property went down in the market far below the par value, and there was no dividend; he was very anxious that, at the earliest possible moment, the shareholders should have something in the shape of dividend in return for the patience with which they waited through all that trying time. (Cheers.) No doubt it might have been possible to have written off a much larger sum, but he was one of those who thought they should do as much as possible for the present shareholders without being unmindful of future shareholders; and, therefore, half the profit of 40,000*l.* having been applied in diminution of the extra expenses, it was fair to divide the other 20,000*l.* amongst the shareholders. (Cheers.) With respect to the capital, they had expended 49,000*l.*, and the directors had been obliged to expend a good deal of that against their will. Since the accounts were made up the loan account had been considerably reduced; it was the intention of the directors to write off a further amount, but it would not be done at the expense of dividend. As regarded the mine itself, all the letters and communications received by the directors went to show that the company possessed a most valuable property, notwithstanding the rumours to the contrary, and a property which, he believed, would last for many years. He, therefore, thought the shareholders might now congratulate themselves upon being in legal possession of a very valuable property, second, he believed, to none on the Pacific Coast.

Mr. HURST expressed his satisfaction with the report and accounts, and also with the honest and straightforward statement of the Chairman. To show the satisfaction which he, as an individual, felt in the matter, he might mention that within the last fortnight he had doubled his stake in the company, and they might be sure he would not have done that except after very serious consideration. The termination of the suit was, to his mind, most satisfactory. If they had gone on they would have incurred expenses far beyond the amount which was paid for the property. He referred to the statements which had been made to the prejudice of the company, and some of them anonymously. Now, he had great contempt and distrust of anything anonymous; if a man was ashamed to put his own honest signature to anything which he wrote for the public press they might be sure that there was some very great cause for it. (Hear, hear.) No doubt many of those statements were made for stock-jobbing purposes. There had been some communications in the *Mining Journal*, a journal of considerable weight in the neighbourhood, and he could have wished that those communications had been signed by the gentlemen who wrote them. But there was one question in one of the letters in the Journal which he should like the Chairman to explain—it was as follows:—"If it takes 6 tons of ore to produce 1 ton of bullion, of the value of $250, from which has to be deducted the cost of its freight to market, a distance of 200 miles (and it costs 40 cents per bushel for charcoal, 35 cents for smelting, $3 per ton for sacking, $5 for haulage, $1 for iron ore and lime rock for flux, and $2 for incidental expenses), what is the amount of net profit realised?" Now, the writer of that seemed rather to think that no profit had been made; whereas, if he read the report aright that report distinctly showed that there was a handsome profit, and a prospect of getting still more by decreased expenditure and proper working of the affair. He wished to ask whether it would not be better to sell the bullion in this country rather than sell it in America? He hoped and believed that the shareholders would receive still better dividends.

Mr. BRIDGEWATER said it was now 12 months since he had the honour of meeting his brother shareholders, during which time they had had great difficulties to contend with, and had been put to much expense; he was, therefore, very pleased indeed to find a report drawn up in such simple style, and showing such good results. He thought, however, that the auditors had rather exceeded their functions in appending the remark they did to the accounts. He referred at some length to the past history of the mine, and expressed his satisfaction with the prospects of the company and its prospects for the future. The termination of the litigation was satisfactory, and he thought the directors had pursued a wise discretion in settling the dispute as they did. The statement of the Chairman as to the large amount of reserves was very satisfactory, as the shareholders could now be satisfied of the permanent value of the property. He expressed his great satisfaction with what had been done by Mr. Probert, Mr. Corrigan, and Mr. McGee. Referring to the fulness of the information given by the directors and the Chairman, he said he never knew gentlemen so frank and candid with their shareholders, and this was a circumstance which still further increased his confidence in the property. (Cheers.)

A SHAREHOLDER said he thought they should have meetings twice a year instead of once a year, as at present.

Mr. PULBROOK said he should like to know whether the gentleman was present who signed himself "A Shareholder" in the *Mining Journal*, and if that gentleman declined to make himself known perhaps it would be well to try by other means to ascertain who the gentleman was, and if the name could be ascertained no doubt the *Mining Journal* would not be object to publish it. Letters like these had been written over and over again, and would continue to be written until some company took the matter up, and endeavoured to punish the gentlemen who were guilty of such proceedings. If a man saw anything wrong in a company let him go the proper way to work, and bring the subject before his fellow-shareholders. He suggested whether it would not be as well for the directors to publish in the *Mining Journal* the reports from the superintendents, showing what had been done during the month.—A SHAREHOLDER: It is done.

Mr. PULBROOK said he did not want this done for his own satisfaction, because for his own part he was perfectly satisfied. He was not a shareholder this time last year, but from the confidence he had in Mr. Probert, and also from what he had ascertained, he had become a large shareholder, and several of his friends had also become shareholders. He certainly thought that if the reports were published once a month, as he had suggested, it would go a good way towards dispelling the rumours which were so industriously circulated. He disagreed with the gentleman who last spoke as regarded the auditors. He was glad to see that the auditors of the company were something more than mere dummies. (Hear, hear.) If auditors of public companies were more generally to draw attention to matters of that sort which struck them there would be fewer companies going into liquidation. He certainly thought the observation of the auditors strengthened the accounts, for it showed they were not afraid to speak out if they saw what they considered was a blot on the accounts. (Cheers.) He must say he had never seen the accounts of a public company which contained so much information as the accounts of this company. Some people seemed to think that they could not pay a dividend whilst there was a loan running, but it must be borne in mind that the loan was applied to revenue account, and not to capital account. (Hear, hear.) That was the whole gist of the matter, and he had no hesitation in saying that the directors were perfectly justified in declaring the dividend they had done. (Cheers.)

After remarks of an unimportant character from two or three other shareholders,

The CHAIRMAN said there were one or two points which he had himself intended to reply to in the communications addressed to the *Mining Journal*, but unfortunately he mislaid the extract, and therefore could not refer to it. The question which appeared in the *Mining Journal* (which Mr. Hurst had read), reminded him of the old problem—"If an elephant takes seven weeks to go from Madras to Bengal, how long would a camel be doing the same distance?" (A laugh.) The gentleman was really ignorant of the subject on which he was writing. There was no relation between the amount of work and the profits obtained; the writer stated that it cost so many cents for charcoal, but he did not state how many bushels were used. Instead of the hauling being 200 miles, it was between 2000 and 3000 miles. In fact, he could not answer the question, the manner in which it was put being so utterly absurd. (Hear, hear.) But he could give this important piece of information, that the profits now amounted to $18 per ton, and the mining costs had been reduced to about $21. Another gentleman had spoken about a matter of some importance—that it was desirable to meet every six months. Now, the board would be only too glad to meet the suggestion. (Hear, hear.) Let them meet as often as they liked, and if at any time any of the shareholders had any doubt all he asked was that they would call upon the directors, and have those doubts removed.

The resolution for the adoption of the report and accounts was then put to the meeting and carried.

The CHAIRMAN, in answer to a question, said he hoped it would not be necessary to shut up the mine in winter, but it would depend to some extent upon the weather, which was very severe last winter. As regarded selling the ore in this country, at present there was a better market for it in New York; but of course that was a matter which constantly received the attention of the directors. His next duty was to propose the re-election of Mr. Geo. Hopkins as a director.

Mr. BRIDGEWATER: I have pleasure in seconding that.

The CHAIRMAN went on to say that he had now sat for many months with Mr. Hopkins, and could bear testimony to the great judgment and ability, and also the great professional and scientific knowledge, which Mr. Hopkins had brought to the service of this company. (Cheers.) Mr. Hopkins had disregarded every other feeling except that of serving the interests of the company, and he had done so most effectually and so industriously that he was sure the shareholders would be rendering themselves the greatest service by re-electing that gentleman.

The resolution was put to the meeting and carried.

Mr. HOPKINS said he was very much obliged to the shareholders for this renewal of their confience in him as a director of the company. No doubt during the last two years the company had had some very dark moments. When he first joined the board he was under the idea that it would be almost a formal work, which would take up an hour or two once a-month. Almost as soon, however, as he joined the directors got the intelligence that an attack had been made upon the company's property; he saw that there was trouble ahead, and he determined to make himself useful to the company. He never allowed himself during all the company's troubles to despair, for the advices which the directors received gave him confidence that the company had right and justice on its side, and, in the long run, right and justice must prevail. (Cheers.) Personally he should have liked to have fought the Eureka Company to the last, and have made them pay the damages; but, looking at all the circumstances of the case, and at the expense and delay of such a course, he agreed with the directors in the desirability of the compromise which had been arrived at. (Cheers.) There was one point on which he should like to make a remark, and that was with respect to the reports which had been circulated from time to time. He did hope that in future shareholders would put themselves in communication with the directors, and obtain the information they required. (Hear, hear.) The board would carefully consider the question of half-yearly meetings. At the first blush of the moment he thought it would be an advantage to the company to have half-yearly meetings, because the more they saw of each other the better for the whole of them, and he for one should be disposed to vote for half-yearly meetings. (Cheers.) He again acknowledged his re-election, and said that so long as he retained the confidence of the shareholders he would do his best to promote the interests of the company.

The CHAIRMAN said there was another gentleman who retired by rotation—Mr. Schultze, who had been indefatigable in his attendance at all times, and ready to come in at any call. He should be sorry to lose Mr. Schultze, who had been of great service to the company. He moved the re-election of that gentleman.

Mr. APPLEGARTH: I have much pleasure in seconding the resolution. He had seen Mr. Schultze at the board, and knew him to be a valuable director.

The resolution was put to the meeting and carried.

Mr. SCHULTZE briefly acknowledged his re-election.

A SHAREHOLDER: A great deal has been said outside about our prospects next Christmas. Can you give the shareholders any idea of what sort of a dividend they may expect? (Cheers and laughter.) I cannot expect that you can tell us anything exact, but can you give us anything approximate?

The CHAIRMAN said that the question the shareholder had put was a very important one. Mr. Probert in his letter said he hoped the shareholders would have a good Christmas-box. After payment of the last dividend, which was payable on Aug. 6, there was left a sum in hand within about 100*l.* to pay the dividend subsequently paid on Oct. 15. There were in addition to that the whole of the October and the September profits, amounting to 29,980*l.* Then there was the prospect of the whole of the profits for November and December to add to the sum. He himself believed that those profits would be better than they had been, for this reason, that the profit of September and October was reduced by the fact that two of the furnaces had been stopped for the purpose of being re-lined for about three weeks, so there was rebate to be deducted from the amount which otherwise would have been made. Therefore he thought the profits for November and December might be put at 17,000*l.* a month, or 34,000*l.* for two months, to be added to what the company now held. Of course it took some time to sell the bullion and get the actual cash to this country. The shareholders could scarcely expect the directors to divide anything like what they had earned, as it was important to put by a good reserve. They had no doubt, however, that the amount to be divided amongst the shareholders at Christmas would be one which they would be satisfied with. The next business was the election of the auditors—Mr. George Broom and Mr. John Hampton Hall.

Mr. PULBROOK said he had pleasure in proposing the re-election of those gentlemen. They were not dummy auditors, but were evidently gentlemen who did their duty thoroughly.

Mr. HOPKINS said he had great pleasure in seconding the resolution.

Mr. BRIDGEWATER said he should move an amendment, as he had had no explanation as to why the auditors had appended the remarks to the accounts.

Mr. BROOM (auditor): We have done our duty to the shareholders in putting in that memorandum. (Hear, hear.) We have looked into the accounts, and it is scarcely a sufficient sum to be written off. It may be putting down the shares, but I cannot help it. We should not have done our duty if we had not made that remark.

Mr. BRIDGEWATER said he should propose, as an amendment, that Mr. Slater be appointed an auditor.—The CHAIRMAN said he hoped that amendment would not be pressed. For his own part he did not see that the auditors had exceeded their duty in making the remark they had done. (Hear, hear.)

The amendment was then withdrawn, and the original resolution put to the meeting, and carried.

The CHAIRMAN said he had now a pleasing and important duty to perform. He had referred to the important services which had been rendered by Mr. Probert, and he should be sorry for this meeting to separate without conveying to that gentleman their thanks for what he had done. (Hear, hear.) Mr. Probert was a gentleman of high social position, and he had left this country, and risked his health, in the service of this company, and had shown a devotion to its interests which could not be too highly appreciated. (Cheers.) He moved a cordial vote of thanks to that gentleman for his services to the company.

Mr. G. HOPKINS said he had great pleasure indeed in seconding the resolution. There was also another representative there, Mr. Corrigan, whose services ought to be acknowledged. Those two gentlemen went out together, and they had worked together, although in different spheres, and, with the sanction of the meeting, he would propose a vote of thanks to Mr. Corrigan for his services.

Mr. APPLEGARTH: I have pleasure in seconding that; the vote is equally deserved by both gentlemen.

Mr. PEERLESS: Will you not give them something more substantial than thanks?

The CHAIRMAN said he was very pleased to hear the suggestion. Of course, those gentlemen would have to receive substantial remuneration, and it was a point which the directors had not lost sight of.

The resolutions were put and carried.

Mr. HURST said he was sure all the shareholders must have been pleased at the straightforward manner in which the Chairman, and the directors generally, had given all the information in their power, and also with the way in which they had conducted the affairs of the company generally. He, therefore, proposed that the warmest thanks of the shareholders be given to the directors for their services.

A SHAREHOLDER: I second that.—The resolution was carried.

Mr. PEERLESS said that there was one other gentleman to whom a vote of thanks was due, and that was Mr. McGee, who had been most attentive to his duties, and who was a most honest, steady, and worthy man. (Hear, hear.) Indeed, he did not know where they would get Mr. McGee's equal on the Pacific Coast. He, therefore, proposed a vote of thanks to that gentleman.

The CHAIRMAN: I have great pleasure in seconding that, I may say I have anticipated Mr. Peerless's views by writing out to Mr. McGee, thanking him for what he has done, and expressing our great appreciation of the services which he has rendered to this company. I must say that Mr. Probert has done justice to everyone, and has kept back his own feelings, in order to forward the interests of this company.—The resolution was put and carried.

The CHAIRMAN: Gentlemen: I am very much obliged to you on behalf of myself and brother directors for the vote you have passed. We have done the best we could for your interests in the past, and I hope we shall deserve your confidence in the future.—The meeting then broke up.

RUSSIAN (VYKSOUNSKY) IRONWORKS COMPANY.

The ordinary general meeting was held at the offices, Pinner's Hall, Old Broad-street, on Tuesday,—Mr. WILLIAM AUSTIN in the chair.

Mr. C. CLARKE (the secretary) read the notice convening the meeting. The directors' report, which has been circulated, was taken as read.

The CHAIRMAN, in moving the adoption of the report and accounts, said he would make his remarks as brief as possible, for the good wine which the directors offered to the shareholders, in the shape of a good dividend, needed no bush. He need hardly revert to the fact which was mentioned in the report—that the whole of the capital had been paid-up, a corresponding bonus having been paid, in pursuance of the resolution of the last general meeting. The company had gone on in its usual course, punctually paying to the day the instalment due to the Russian Government for the advances made for the rail mill, and also in respect to the arrears of interest, which were arranged to be paid by annual instalments. The directors had also reduced the liability of the company by a re-valuation of the inventory of materials taken over by the company in the year 1865. The shareholders would remember that for several years they were unable to put a satisfactory valuation on those materials, as they had not agreed to the amount with the lessors of the property, and the company had to take them at a valuation that had been made up to the best of their ability. Since the supplementary contract, however, which was entered into eighteen months ago, those materials had been valued in accord with the lessors of the company at 4475*l.* less than they valued them at. Perhaps the most satisfactory feature that the directors had to report was the perfect agreement which existed between themselves and the parties who let the property to the company in Russia. The profits spoke for themselves; they enabled the directors to declare a dividend of 10 per cent. in addition to the 5 per cent. already made, making 15 per cent. for the year. Perhaps some shareholders might think that the amount to the credit of profit and loss account would have warranted the directors in declaring a larger dividend; but the shareholders must remember that there was no capital to fall back upon in case of reverses; there were also large sums to be paid to the Russian Government, and the business was of a somewhat fluctuating character, and under all these circumstances he thought the directors were pursuing a wise policy in not dividing a larger amount. Then, again, in the contracts for the present year the directors had had to submit to a sensible reduction in the price of iron. Then, again, there was some considerable uncertainty as to the price of wood, which appeared to be rising, and this was an important element in the company's manufacture. Therefore, looking at all these circumstances, he thought the dividend was as large as they ought to declare. In fact, Mr. Lambert, who was in St. Petersburg conducting the negociations for the purchase of wood, was of opinion that the proposed dividend was almost too large. He might mention that the directors were very much interested in a large dividend, as they were themselves very large shareholders, and, of course, would willingly put the money in their own pockets if they could prudently do so. In the early part of the year Mr. Sheriff and himself paid a visit to the property, and were much pleased with what they saw there. The property was a most extensive one, and the manufacturing part of the property surprised them, considering the remote part of the district in which they were situated. The smelting furnaces did not appear to be quite up to the scientific requirements of the present day. He believed that the suggestions which Mr. Sheriff and himself made would result in some saving to the company, particularly in respect to economy of fuel. There were other matters in connection with which he was confident their visit would result in good to the company. Referring to the accounts, he said that last year Mr. Kemp's (the auditor) representative went over to Russia, but this was now considered unnecessary. As regarded the valuation he had no doubt it was substantially correct. With regard to the sale of iron, it might appear singular, at a time when the iron market in England was exceptionally high, that there should be a falling off in the price of iron in Russia, but the interior of Russia was so remote that it was not affected by the price of iron here. At the great fair of Novogorod such a flat market had never been known, and the trade of Russia generally had been in a very unsatisfactory state. Having referred to one or two minor matters in the report, he moved the adoption of the report and accounts.

Mr. SHERRIFF seconded the resolution.

Mr. TENDRON made one or two remarks on some of the items in the accounts, and particularly referred to the remuneration of the directors, which he contended was too large, and ought to be reduced.

The CHAIRMAN said the remuneration was given by the Articles of Association, and considering the large amount of labour which the directors had had in connection with the company, he certainly thought that the amount was not too large; at the same time, the directors would take the matter into consideration.

After some further discussion, in the course of which Mr. KEMP (the auditor), explained some of the items in the accounts, the resolution for the adoption of the report was put to the meeting and carried.

The auditor was re-elected, and the proceedings closed with a vote of thanks to the Chairman and directors.

THE BREMER MINING COMPANY.

A general meeting of shareholders was held at the City Terminus Hotel, on Tuesday,—Mr. CYRUS LEGG in the chair.

Mr. W. H. WYON (the secretary) read the notice convening the meeting.

The report of the directors regretted that the progress in the development of the mine has not hitherto been so great as was anticipated. On forking the water, it was ascertained that the underground workings had suffered materially from the length of time the mine had been stopped, which necessitated a renewal of a large portion of the ironwork, ladders, and tramways therein, by which much valuable time was lost and extra expense incurred. The manager had also to contend with a scarcity of miners, most of those employed by the late company having found work in other localities. This difficulty, however, is being gradually overcome, each return from the colony announcing an increase in the number of hands.

The new engine and boiler house, with other buildings, are progressing favourably for the reception of the steam-engine intended to work the crusher and Hancock's ore-dressing machine, and the directors are led to believe the cost of dressing ore will, by these means, be materially reduced, and that with increased raisings, at the present price of copper, there is every probability of a good return on the capital. The paid-up capital of the company on Oct. 1 was 14,000*l.*; this, with a loan from the bankers of 6000*l.*, and drafts outstanding 2500*l.*, has enabled the directors to pay for—The freehold property of the company (about 1527 acres), 12,811*l.*; expense of forking the water, 2633*l.* 14s. 8d.; capital expenditure on account of buildings, boiler, machinery, development of the mine, &c., 2855*l.* 14s. 11d.; Articles of Association, conveyance of property, interest, and general charges, 1002*l.* 10s. 3d.—leaving only a small margin for trading account. In explanation of the amount of 3768*l.* 15s. 2d., the balance of trading account, 2312*l.* was expended before any ore could be brought to the surface, and was a necessary expense incurred in re opening the various levels.

Owing to the difficulties before mentioned the raising of ore only commenced in December last, from which time up to July 675 tons, averaging about 10¾ per cent. were raised. The directors have every reason to believe now that the 103 fathom level is reached, and the lode reported richer than in the levels above, the quantity of ore will be largely increased, and ensure success to the undertaking when the mine and machinery are in full work. The committee in the colony are Messrs. Bonney, Brind, and Hallet. The directors are satisfied with the energy and perseverance of Mr. Hallet, who is the acting manager. The directors believe, with such gentlemen acting for them in the colony, the shareholders have every guarantee for honest and economical management.

The CHAIRMAN said it was rather unfortunate that they should have had to hold their meeting just at the very period when money was 9 per cent., and when business people did not look upon matters with so rosy a hue as when money was only 2 or 3 per cent. It not unfrequently happens that under such circumstances shareholders lose sight of the intrinsic merits of speculations into which they have entered, and come to conclusions—perhaps foregone—because things outside were not so favourable as could be wished in money matters. In directing attention to the report of the directors for the past year he did not know that he could say a great deal more than had already been put forward. The directors regretted that progress at the mine had not hitherto been so great as could be wished, but he need hardly say that delays have arisen from various causes over which they had no possible control. He then read extracts from letters showing the difficulties experienced in the first instance in "forking" the mine, owing to the alterations and repairs necessary to the pumping machinery, from which it appeared that it was not until August they were able to get into the mine. Some people (the Chairman proceeded to state) might fancy there had been a greater delay than there should have been, but the merest tyro among them would know that nothing could be done until the water had been got out, which was always a tardy and expensive operation, and almost invariably necessitated the replacing a great many ladders and timber which the copper water had injured. Added to this there was, in the first instance, great scarcity of labour, which difficulty was passing away, each succeeding despatch from the colony showing that hands were considerably increasing; the average number employed by the old company were from 145 to 155, and since March, 1873, to July the number had increased from 76 to

119. Some of them were employed in building the new engine-house, but in the last advices the manager expressed a hope to be able to report by the next mail that this work had been completed ready for the machinery, which had been contracted for at 1300*l*. Although the mine had not done what he conceived many shareholders had expected, yet as a proof of its producing capabilities when in full work he might mention that from 1864 to 1870 there were extracted no less than 19,600 tons of ore, yielding an average of about 10 per cent., and producing 1950 tons of copper. The price during those years was very low, much below its present value, but this amount realised 137,000*l*. Having been one of the original company he was anxious to show the present shareholders the amount of ore the mine had returned. The mine was still capable of yielding largely; the 103 level was in whole ground, as well as other points, therefore they had a right to suppose that having taken this amount of ore out of the mine when copper was at a low price, it would pay them much better now. In the last year of the old company they drove 113 fms. of levels, 40 fms. of cross-cuts, sunk 59 fms. of winzes, and the shaft from the 93 to the 103, which was a very expensive matter. They smelted that year 270 tons of copper, and stoped away 600 fms. of ore ground, but up to July, 1873, they had driven only in levels 109 fms., and sunk in winzes 11 fms., showing they had not as yet placed the mine in that scale of working which it would be by-and-bye. They had stoped only 240 fms., and raised 675 tons of ore—the difference between that and 600 fms. would have given them 2000 tons of ore. Hancock's dressing machinery would soon be at work, and they were advised that it ought to dress at a considerably less cost, and also raise the percentage up to 14 instead of 10, a very important consideration, as it would take a proportionately less amount to produce a ton of copper, thereby reducing the smelting charges. There was no doubt that when the mine had been got fairly and profitably at work the costs would be materially reduced, so that there was every probability the shareholders would get a return upon their capital. It appeared from the balance-sheet that the directors had received a large amount of money during the past year—23,970*l*.; but they had a right to suppose that the mine, being in working order, was worth 12,800*l*., as it was valued as a going concern at 25,000*l*., including nearly 1600 acres of land, which should be worth 5000*l*. for agricultural purposes. Some of it was valued at 4*l*. 10*s*., and some at 2*l*. 10*s*. per acre, but the whole could be valued at 3*l*. 10*s*. per acre. It had cost 2632*l*. to fork the mine, the new machinery now on the mine 1230*l*., and in developing the mine 1624*l*. Deducting these various items, there was very little left for what might be termed trading purposes. They had paid interest and exchange 539*l*., and Articles of Association and office expenses 463*l*. As yet they had not had time to realise results, because they had not had time to get the mine in working order; and until the machinery was at work and the mine in order they would be unable to raise the 2000, 3000, or 4000 tons of ore, as they had done in previous years. If copper kept its present price, he felt satisfied the mine would really prove to be profitable. The Wheal Maria, which was only just commenced to be worked by the old company, but reported as very rich, should most certainly be worked by this company as soon as they could make a reserve from the profits of Bremer, for the establishment charges would be no greater. The colonial committee had drawn altogether 8500*l*., and there was an outstanding liability for the engine of 1300*l*., and at the date of last advices there was a balance in hand of 315*l*. All he, in conclusion, could say was that he believed in Bremer they had a valuable property, and in Wheal Maria a still more valuable one. He then moved that the report and balance-sheet be received and adopted.

Mr. ALEXANDER MORRISON seconded the proposition. The statements submitted by the Chairman were strictly in accordance with reason. He was not at all surprised that the mine hitherto had not realised any results—it was clearly because it had not been drained. The Chairman's statements had inspired him (Mr. Morrison) with a view as to the value of the mine which he had never before thought of. He believed they possessed a property of great value, and one that would, under proper guidance, prove highly remunerative. The amount of money expended was not great, and he believed with a little patience they would realise results satisfactory to all concerned.

The motion adopting the report and accounts was put and carried unanimously.

Upon the proposition of Mr. HAWKINS, seconded by Mr. PURDY, the retiring directors were re-elected.

Mr. SIMONS, on behalf of his colleague and himself, thanked the shareholders for their renewed mark of confidence. As to the mine, he had no doubt that the representations made as to the value of the property, which induced him to become a shareholder and join the board, would be borne out by results, and that they would really have a paying mine.

Mr. Arthur Cooper (accountant) and Mr. J. R. Morrison were appointed auditors for the ensuing year.

A vote of thanks to the Chairman and directors closed the proceedings.

BURRA BURRA COPPER AND TIN MINE COMPANY.

The ordinary general meeting of shareholders was held at the company's offices, Gresham House, Old Broad-street, on Wednesday,

Mr. J. TANNER in the chair.

Mr. J. A. L. MUSPRATT (the secretary) read the notice convening the meeting, and the minutes of the preceding one, which were confirmed. The reports of the directors and agents were then submitted:

Since the statutory meeting the directors had given continued and careful attention to the working of the mine, with a view of rendering it profitably productive as quickly and at as small a cost as possible, and they cannot more fully describe the present position and prospects of the mine than by referring to the reports of the agent—Capts. James Brown and Thomas Jenkin—and of Capt. W. Johns, whose reputation in connection with West Caradon and other mines is well known and acknowledged. These reports show—1. That the lode now being worked is of a masterly size, very regular, and carrying two well-defined walls; and that, as the ground that was taken away by former workers appears to have been profitable, there are favourable chances of finding good ground in the deeper levels. (Capt. Johns' report.)—2. Although the working was only commenced in December, 1872, and the mine is opened to a depth of but 50 fms. from surface, and that on only one of the numerous lodes it contains, it is already yielding returns of copper and blende (Capts. Brown's and Johns' reports).—3. The engine-shaft (Tanner's) is now sunk to a depth of 50 fms., where the lode is found to be from 4 to 6 ft. wide, in a good channel of ground, and composed of mundic, peach, and spar, with good stones of copper ore, and apparently nearing an elvan course, about which the parallel lodes in the adjoining mine make their great courses of copper and tin. The shaft having been sunk to this depth, a 50 fm. level may now be driven east and west (Capts. Brown's and Johns' reports).—4. The 40 east has just intersected the cross-course, which contains very rich stones of lead, and the lode as it leaves the lead course is yielding fine stones of copper ore; and as this end is now coming under the run of ore ground which was found productive in the 30, it may be reasonably expected that the returns from this point will be considerable. The same level has been driven west 50 fms., where also the lode is producing good stones of copper ore (Capt. Brown's report); and in 10 fms. more driving this level will come under Street's shaft, being sunk from surface (Capt. Johns' report, and see section).—5. In driving on the cross course from the 30 they appear to be getting near a lode, the back of which has been seen at surface (Capts. Brown and Johns' reports), and which is supposed to be the productive tin lode of the neighbouring mine, Britain United, which on a very limited scale of working has within little more than twelve months returned tin which has sold for 2000*l*. 8*s*. 6*d*., all taken from above the adit level.—6. Street's shaft, which is being sunk from surface (see section), is now 20 fms. deep, and the lode is fully 8 ft. wide, composed principally of mundic and spar, with excellent stones of copper ore—a splendid-looking lode, and from its appearance giving indications of speedy improvement (Capt. Brown's report.)—7. Although this feature is not referred to in the reports, it should be mentioned that, the water being light, a very moderate engine-power is sufficient, and the mine is, therefore, in that respect worked at an unusually light cost. In addition to the copper and blende which have been sold, and are included in the accounts, there are about 120 tons of the latter mineral still on the mine and on the company's wharf at Truro, some portion of which has been sold for a foreign market, but for the conveyance of which to its destination the purser has not yet been able to obtain a vessel. With the developments already effected in the mine the good indications given at several points, and the various objects aimed at in the workings now being carried on, as described in the reports, taken in conjunction with its favourable geological position, the numerous lodes, cross-courses, and elvans by which it is intersected, the productive mines by which it is surrounded, and the moderate cost at which it can be worked, the directors consider there are good grounds for confidence that it will very soon be a profitable and increasingly productive mine.

Capts. Brown and Jenkin reported that looking at their various points of operation, with the change of ground in Tanner's engine-shaft, and the lode in the east end, where they may fairly expect an improvement shortly, with the south cross-cut nearing the south lode, seen in the eastern pits at surface, and the appearance of the lode in Street's shaft, they never saw the mine looking so well since the present company commenced operations; and it is their firm opinion that if the present operations are carried out they will open up a very productive mine.

Capt. William Johns, in concluding his report, says:—I have not hastily gone into this matter, but looking at the mine on the whole, and at the character of the lode generally, and after viewing what has been taken away by the former workers, which seems to me must have been good profitable ground before it changed principally from copper into blende, and now about the 40 very little blende being to be seen, which evidently shows the lode to have undergone another change, I consider your chances of finding something good are most favourable in depth, and for the present I should suspend the sinking of Street's shaft, and force on the 40 west by the side of the lode for dispatch, instead of carrying the whole of it, and cut into it in places to test its value when thought advisable; should anything be cut rendering it worth while, the sinking of the shaft can be again resumed. I would again repeat that the lode is very regular, and carries two well-defined walls, and is of a masterly size, and your best chances of success, in my opinion, are to sink to a reasonable depth; and I should recommend that your operations be confined principally to the bottom of the mine.

The CHAIRMAN said that in moving the reception and adoption of the report and accounts he had but little to tell the meeting, as all had been detailed in the report, the contents of which was already known to them. The working of the mine had been vigorously and he believed judiciously prosecuted, and although the returns had not yet equalled their expectations he thought that they had obtained ample evidence that they had a valuable property. He believed that a little further development would bring them to points of increased value, and for securing this development it was merely a question of ways and means. If funds were supplied they would be able to bring the mine into a profitable state, but funds were absolutely necessary. If all their capital was subscribed they would have quite enough. He thought that an effort should be made to place the remaining shares, especially as the captain told them that there was no doubt whatever that they had a valuable property. He concluded by formally moving the resolution.

Dr. EVELEIGH did not doubt that the report and accounts were correct, although he had not had an opportunity of examining them, but from a recent visit to the mine he had formed a very clear opinion as to the mine, and could bear out all that the Chairman had stated. He believed they had one of the best properties in Cornwall, but it would require much more money than the company possessed. The old ore seemed to him to be to the east of their present workings. He believed the mine would yield tin, copper, and lead, but they would have to work deeper to get it, and he thought that if they put down a shaft more to the east and a little to the south they would cut their best copper deposit. They would have, however, to go 30 fms. deeper than they now were, and as their capital was insufficient, he believed the best plan would be to form a new and extended company, which would work the mine to a profit.

The CHAIRMAN observed that their captain had told them that 5000*l*. would suffice for testing the mine, and as this company had 7000*l*. at their disposal he could not see that they were in an unfavourable position.

Capt. JAMES BROWN said that as Dr. Eveleigh had suggested the necessity of a new engine, he would state that his opinion was that their engine would take them 70 or 80 fathoms deeper, which would be ample for the present. If they were to sink to the east, as Dr. Eveleigh suggested, it would involve a large outlay, and they would not see the lode at all, as it dipped in the opposite direction. They were now down to the 50, and they had just met with an elvan course running with the lode—this had always proved productive in the neighbouring mines. Their present engine would do double the work it was now doing, and their present shaft, which was in the best possible position, would command the cross-courses, and all the western ground. They hoped to reach the Redwork lode in about six weeks. He believed from 5000*l*. to 6000*l*. would bring the mine into a paying condition. The tin lode cannot be more than 14 or 15 fathoms from the main cross cut, and he would recommend that all money be expended in opening up the lodes. All their ground dips to the west. The lode in Street's shaft is 8 feet wide.

Dr. EVELEIGH believed no lode in the district had proved valuable at less than 30 fathoms in depth.

Capt. BROWN said that was far from being the case. Wheal Buller lode was cut at 17 fathoms, and proved highly valuable, and the old Pensruthal lode was cut in the adit at less than 17 fathoms deep, and yielded 18,000*l*. in two months.

A SHAREHOLDER said in reply to Dr. Eveleigh that the lode on which they are now driving at the 40, had yielded copper ore at the 30, which had sold for more than 1500*l*., as shown by the Stannary returns; and that, as this run of ore had gone at the 30, there could be no reasonable doubt of its being met with at the 40, in a few fathoms more driving, as anticipated by Capt. Brown in his report.

Mr. SUTTON concurred with some of Dr. Eveleigh's statements, but to propose to wind-up a company at the first general meeting seemed to him an extraordinary proceeding, and a suggestion which would sacrifice the shareholders who had subscribed their money. Should they discover the lode they are sinking for they would have no difficulty in raising any necessary capital, and with regard to their present position it seemed to him to be a question whether they should have confidence in their captain, or pin their faith to Dr. Eveleigh.

The resolution was then put to the meeting and carried unanimously. The directors (with the exception of Dr. Eveleigh, who expressed a wish to retire) were re-elected, and Messrs. Johnstone, Cooper, Wintle, and Evans were re-appointed auditors.—The proceedings terminated with the usual complimentary vote of thanks to the Chairman.

DAVENPORT MINING COMPANY.

A meeting of shareholders was held at the offices of the company, Cannon-street, on Friday, the 14th instant,

Mr. A. H. PHILLPOTTS in the chair.

The CHAIRMAN stated this meeting had been convened in fulfilment of a pledge given at the meeting in August last to enable the shareholders to hear the result of Mr. Andrew Murray's visit to the mine, and the details of the change of management which had been resolved upon by the shareholders at that meeting.

Mr. MURRAY stated that several important matters in difference between the company and the vendor had been referred to arbitration, and that it would not be right to read the whole of the report he had made to the directors. The mine itself was in the limestone formation, and the ore was found in deposits or pockets, which had not as yet been proved to any considerable depth. He thought the permanence doubtful, but it was fair to state that he might be mistaken. He described the process of smelting as conducted in Utah, and he regarded it as unlikely that the very considerable loss of silver, amounting to upwards of 20 per cent., would be materially reduced.

Mr. Murray's report was not considered by any means satisfactory.

The CHAIRMAN stated that the prospects of the company had certainly improved since their meeting in August, when, according to the reports of Mr. Murray and Prof. Clayton, there was only 1000 tons in sight. Since that time they had taken out a considerable quantity of ore, and yet it was believed that there was still 1000 tons in sight. They had reduced their liability to the bankers in Utah from 365,000 to 340,000. They had 750 tons of ore at the furnaces and 200 tons at the mine. They had a large quantity of stores in hand, such as luxes, coke, charcoal, &c. In accordance with a wish expressed by some large shareholders, they had appointed Mr. George J. Johnson, of Salt Lake, manager. He took the furnaces under his complete charge on Nov. 21, and he would relieve Mr. Phillpotts of the management on Dec. 1 next. They had appointed an English accountant to assist Mr. Johnson, who would proceed to Salt Lake in the course of a few weeks.

Mr. ANDREWS enquired how much ore had been taken out of the mine since MAY 1873.—A DIRECTOR stated that the exact quantity was not at present known, as the returns were on the way, and would be received in a few days; but it could not be less than 1500 tons, of the net value of at least 10*l*. per ton.

The CHAIRMAN proposed to raise a sum of 5000*l*. on debentures, repayable in two years, bearing interest at the rate of 10 per cent. This would be applied to the payment of the debt to the bankers at Salt Lake, upon which the rate charged is 2 per cent. per month. He appealed to the large shareholders to take some portion of this amount.

One SHAREHOLDER promised 1000*l*., and several others stated their willingness to assist.

[We are informed that the returns of ore taken from the mine have since arrived, and that 1598 tons have been taken out up to May 15. More than half of this is still on hand.]

NANT-Y-GLO AND BLAINA IRONWORKS COMPANY.

The annual general meeting of shareholders was held at the City Terminus Hotel on Nov. 15,

The Right Hon. W. N. MASSEY, M.P., in the chair.

The notice convening the meeting having been read, the report of the directors was taken as read.

The CHAIRMAN said he felt a degree of disappointment and pain which he had never yet experienced in any public duty which he had had to discharge. He thought when they assembled that day last year, notwithstanding the difficulties the company had to encounter, and the great advance of wages which pressed upon their resources, their prospects were such that they might fairly hope that when they met their shareholders that day they might at least realise the dividend which was held out in the prospectus. He need not dwell on the principal causes which had led to the disappointment of these expectations, and to the postponement—he hoped only the postponement—of the dividend which they had a right to expect from the vast property they possessed. The strike, which lasted three months, had disorganised not only that company, but many others in South Wales, and they only participated, though in a greater degree, in the loss and disaster which had been experienced by their neighbours. The exact loss in money which had been sustained by the strike was 29,221*l*.; but he need hardly say that sum did not represent the whole of the loss the company had sustained, and that the proportion of loss, which did not admit of calculation, was probably largely in excess of any that could be reduced to figures. If he were to say the loss to the company was equal to 50,000*l*. or 60,000*l*., he did not apprehend he should be guilty of exaggeration. When he last had the honour of addressing the shareholders he had to deplore the excessive and increasing demands of the working people, which had resulted in an increase of wages to the extent of nearly 60 per cent. It might be said that as wages increased so did the profits.—(A Voice: "Double.") He was sorry to say that was not the case. As the wages increased, the difficulties of working had also largely increased. Some months since they knew that the manufacture of iron, if it had not ceased to be profitable, was rapidly reaching that state. The company had, therefore, discontinued to a large extent the manufacture of iron, in the desire to utilise their large supply of saleable coal; this could be put upon the market without any risk of bad debts, and from a supply of 200 or 300 tons per week they would, through the reduction in the manufacture of iron, be able to sell about 3000 tons per week. From that they would receive a tangible profit which they had never yet enjoyed. They had also to offer to the public virgin soil that was estimated to yield 1500 tons per day, but on this the directors would be glad to receive the advice of the shareholders. The expenses of management had been excessive, and he hoped and believed a reduction of no less than one-half might be effected in the cost of manufacture. Several new openings had been made upon their coal, sufficient to employ all the men they could obtain, and labour expended upon the production of coal would be immediately productive, and would not be a source of anxiety, which the vast amount of wages to meet had hitherto been, to the directors. When they entered more largely into the production of coal—which he hoped they would do—they would encounter more difficulty from the want of accommodation for the men—a difficulty they must meet, for it was one of pressing importance. They had pits now open ready to work, but they wanted men. By the addition of winding machinery they could obtain an almost unlimited supply of coal from the pits now open. Although not the very best quality, it was a very valuable and saleable coal, as was proved by the tenders eagerly pressed for them. He then quoted the present premiums of the shares in the leading coal and iron companies, and the discount at which they stood some time since, and stated that he believed the Nant-y-Glo shares were now at their lowest; and looked with improved management to see this company in a similar condition of prosperity to that arrived at by its neighbours. He was bound, however, to say that the affairs of this company could not be sufficiently conducted by the management resident in London—a London board was useless, and worse than useless; the board should consist for the future of business men, and should meet, not in London, but at the works, about once a month. He would not undertake to say that he was fit to preside; he had supposed he was to superintend a going concern, and to advise on financial policy with which he was conversant, but scarcely a day passed in which he was not called upon to advise and give a decision on matters of detail on which he could hardly form an opinion. He would recommend that the company should appoint a committee of investigation; and he assured them that in suggesting his retirement he was actuated wholly by regard for the interests of the company. He then moved that the report and balance-sheet be received and adopted.

Mr. JAMES CARLTON (Deputy-Chairman) seconded the proposition.

Mr. HUGH MASON (Chairman of the Manchester Chamber of Commerce) assured the gentleman who presided over this meeting that he respected his high personal character, and had regard for the services he had rendered to his Queen and country, which would prevent him from saying anything of a disrespectful character, and proceeded to say that the whole commercial history of this country did not give an instance of more gross mismanagement than the Nant-y-Glo Company. After the hilarious account of their affairs by the Chairman last year, they found now that the whole working capital had been sacrificed in 12 months. With a capital of 1,000,000*l*., they had only been doing business to the extent of 400,000*l*. If they only turned over their capital once in 2½ years, how could they hope to succeed? He particularly drew attention to the course pursued by Mr. James Carlton and that of Mr. Levick; and he should suggest that both these gentlemen should retire. He would move, as an amendment, that the report should be received, but not adopted.—Mr. CHARTERIS seconded the amendment, and on its being put it was carried *nem con.*

Mr. CHIPPERFIELD moved the appointment of an independent committee to enquire into the company's affairs.—This was seconded.

Mr. MASON suggested an adjournment for three weeks to enable the directors to prepare a clear statement of the company's affairs, and to give suggestions for the future.—During the discussion which ensued, reference was made to the report of Messrs. Bird, upon which the company purchased the property.

Upon the proposition of Mr. MASON, it was eventually resolved unanimously—"That this meeting be and is hereby adjourned to Friday, Dec. 5, at one o'clock in the afternoon, in order to afford the directors the opportunity of presenting to the shareholders the most complete and detailed information in their power; and also stating the course they recommended to be taken for the future management of the company, and also that 10 days' notice be given to the shareholders of the company."

A vote of thanks was passed to Mr. Mason, and also to the Chairman, when the meeting adjourned.

CWM ELAN LEAD MINING COMPANY (LIMITED).

The second ordinary general meeting was held at the London Tavern, on Wednesday,—Mr. CHARLES ELEY in the chair.

The CHAIRMAN said it would now become his duty to give an account of what had been done during the past year. He had first of all to deal with the several items in the report, and then, for the information of the meeting, he would deal with such items in the accounts as called for special attention. The report, in the third paragraph, alluded to work which had been done, and pointed out the work accomplished and the number of fathoms of work executed since the making up of the last accounts. The drivage in the 10 fathom level, east and west of engine-shaft, had been temporarily suspended, the directors considering it advisable to confine the outlay to the sinking of the engine-shaft, for the purpose of developing the mine in depth, and in stoping to supply ore to help pay cost, it was then intended to drive on the 20, east and west on the lode. That was now in progress, and if the shareholders would refer to the report which was received from Captain Eddy—a gentleman of considerable experience in mining matters—they would see what he recommended to be done for the development of the property. There was above the 10 fm. level a considerable quantity of stoping, which the directors hoped and believed would be taken out and brought into the market, and produce something periodically towards the cost of working the mine. The ore which had already been sold was accounted for in the report, and the shareholders would see the amount of money it had realised. Further, dressing was in progress, and he hoped they would not only have a better result from the quantity of stuff crushed, but also a better price for the lead than they had hitherto realised. The price of blende had been very low, but that, he was informed by persons of good authority, was caused in a great measure by the very high price the smelters had to pay for coal to reduce the ore they purchased. He (the Chairman) was now going to mention a subject which the directors had entered upon, in one sense, as a matter of economy, although by carrying it out the directors had no reason to think that the property would be managed with any less degree of ability than hitherto—he was alluding to the question of agency. It would be seen in the accounts that the item of the salary for agents for the past six months amounted to no less than 126*l*. The directors had come to the conclusion that that item should be reduced, and that Capt. Goldsworthy was fully capable of undertaking all the duties of the agency; therefore, they had placed the mine entirely in his charge, and Capt. Williams's services were no longer engaged in the company. There was another matter which considerably affected a portion of the shareholders, but not the other portion—and that was the question of calls. As the shareholders were aware, the directors had to collect the call made in October last. When he (the Chairman) had the pleasure of addressing them in May he considered the call then recently made would have produced a fair and reasonable amount of money; but in this respect he had been unfortunately disappointed. The call had not produced so much as was anticipated by many pounds. In the collection of the call the directors had considered themselves bound on one hand to consider the position of the shareholders, and, on the other hand, they had felt themselves bound, as far as they could, to consider the means and position of those who were called upon to contribute to that call—(hear, hear)—and the directors had done this. Whilst they had not sacrificed the interest of shareholders, they had dealt leniently towards those who had to pay; but there was a time beyond which they could not go, and when the directors found there were people who would not pay the call, they were bound, in justice to other shareholders, to take the step of forfeiting the shares of those who would not pay. (Hear, hear.) Whilst the directors regretted that that call had not produced the amount expected, they looked with some satisfaction to the work in progress, and to the fact that every fathom more in depth which the mine was carried was so much the better, and the stronger did the course of the ore in the lode proceed. When he was on the mine a short time since he saw a stone of the lode which had been taken out of the 10 east, which was a part of the mine where there was a partial loss of lode through the intersection of the cross cut. In it were those large lumps of lead, and Capt. Goldsworthy said there must be some lead, or these stones would not be there; and that the deeper they went the more there was a chance of opening up a good and valuable undertaking. (Cheers.) The plant and machinery were doing their work very well; it was some time before they got into entirely efficient working, but he thought he might say so now. The deficiency in the payment of the calls had reduced the funds of the company, and it might be the opinion of some that if that was continued, and if the directors did not obtain more from the call than they had hitherto done, the funds of the company might become exhausted. He quite anticipated that some such question would emanate from some of the gentlemen present; but, as chairman, he might tell them that should such a state of things become apparent the directors would at once confer with the shareholders. He believed there was nothing which so much consolidated friendship between shareholders and directors as fair conference and fair dealing between the one and the other, and whilst he had the honour of holding his position there should never be any want of confidence between the directors and the shareholders—(cheers)—and if the directors found themselves in any difficulty they would at once come to the shareholders and ask them for help, and also be prepared to submit to them some scheme for consideration which might be necessary to provide the capital to freely develope their property, which he thoroughly believed to be a good one. Referring to the item of "sundry creditors, 60*l*. 13*s*. 8*d*.," he said that this included the cost sheet of the past month—18*l*. 1*s*.; it also contained items for rent of office and clerkage due to himself, for he had supplied the office and the clerkage at the request of his colleagues, and this arrangement had been found very convenient, and the expenses were not greater than before. With respect to loans and interest to date—663*l*.—a portion of those loans had been raised by gentlemen who were not now directors, and some small loans had also been obliged to be raised subsequently, some of which had been from time to time paid off. The bills payable were the only amounts due to Mr. William Thomas for supplying machinery, and he might mention that Capt. Eddy spoke of the machinery as having been very good. The sales of ore amounted to 110*l*. 5*s*. On the credit side there was an amount due for plant and machinery amounting to 98*l*., which was due for the water-wheel and other matters, which the directors were obliged to incur to make the machinery efficient. The largest item of expenditure was for underground work; there was also 23*l*. for solicitor's work, but it was a legacy left by the old directors: the present solicitor's charge for the past 12 months was the moderate amount of 5*l*. There was an amount of 139*l*. for calls in arrear, and he believed that altogether there was a sum of 572*l*. which could be relied upon. The remainder might be considered as bad. At a later period of the meeting he proposed to ask the shareholders to pass a resolution for forfeiting the shares in arrear. He proposed the reception and adoption of the report and accounts.

Mr. BROWSE seconded the resolution.

Mr. GRANT said he believed there was not in London a more honourable board than that of this company, but he could not disguise from himself the fact that this report was an ugly one, and that the position of the company demanded serious attention. Judging from the report of Mr. Eddy it really seemed that only one lode had been discovered, and the amount of lead which had been sent to market was miserable. Looking at the gloomy state of affairs, and believing that it would cost too large a sum to work deeper, he considered it would be much better to wind up the company.

Mr. JAMES objected to the idea of winding up the company, and said that no reason had been given for such a course. Certainly, up to the present time there had not been good returns from the mine, but there was reason to believe that the deeper they went the better would the returns be.

The CHAIRMAN agreed with the last speaker in thinking that they should banish all idea of winding up the company, and thus lose every chance of getting a return on their shares. (Cheers.) He believed that the mine, if properly developed, would turn out a good property.

The resolution was then put to the meeting, and carried.

A resolution was then passed authorising the directors to sell, cancel, or otherwise deal with the forfeited shares.

A cordial vote of thanks to the Chairman and directors closed the proceedings.

BROOKWOOD MINING COMPANY.

At a general meeting of adventurers, held at the purser's office, Liskeard, on Tuesday (Mr. T. K. DYMOND in the chair), the accounts for sixteen weeks, to Aug. 15, showed a profit of 60*l*. 15*s*., and also a balance in favour of the adventurers to the same date of 1395*l*. 10*s*. 8*d*. A dividend of 1200*l*. (6*s*. per share) was declared, and 195*l*. 10*s*. 8*d*. carried forward. The following report was read to the meeting:—

Nov. 18.—The lode in the 110 fm. level west is 5 ft. wide, yielding saving work, and from its appearance we are daily expecting an improvement. The lode in the 100 fm. level west is 5 ft. wide, worth for copper 15*l*. per fathom. The lode in the 100 east is 2½ ft. wide, a promising lode, yielding saving work, but at present nothing to value; still, from the favourable indications of the lode in this direction, we are in hopes of soon realising a good paying lode. We have commenced a winze in bottom of the 100 west, 12 fms. behind the present end; the lode is 4 ft. wide, worth 20*l*. per fathom. The lode in the 90 end west is 5 ft. wide, worth fully 30*l*. per fathom; this end is nearing the Wheal Emma boundary, and has been driven for the last 12 fms. through a lode of similar value as now reported, hence a good lode gone down, which we hope to meet with by driving the 100 west. The stopes throughout the mine continue to produce the usual quantity of ores. Our machinery is in good trim, doing its work remarkably well. On the whole, the mine is in a sound and healthy state, and I see no reason why the returns may not be for the future just the same as for a long time past.—THOMAS TREVILLION.

UNITY WOOD.—At the three-monthly meeting, held at the mine, on Thursday, the purser (Mr. Henry Michell) presiding, the accounts showed a debit balance of 177*8*. A call of 5*s*. per share was made. The Chairman said the debit balance might be mainly accounted for by the erection of new stamps, and the present high price of materials; and everything delivered on the mine up to the end of September had been charged in the accounts presented. A discussion having ensued as to the desirability of altering the present system of paying the men every four weeks to the old style of paying by the calendar month, it was put to the meeting, and finally decided that the men be paid for the future twelve times every year, instead of as at present thirteen times. Eighteen shareholders, holding about 750 shares, voted for this alteration; and sixteen shareholders, holding about 500 shares, wished the four-weeks pay to be continued.

[For remainder of Meetings see to-day's Journal.]

WEST GODOLPHIN.—The Duke of Leeds has consented to a reduction of dues from 1-20th to 1-25th during pleasure, and has also given up all dues for the next six months.

VIRGINIA: ITS ATTRACTIONS TO THE CAPITALIST AND THE EMIGRANT—No. VII.

ITS PRODUCTS AND AGRICULTURAL CAPABILITIES.

Having glanced at the mineral wealth stored up in the mountains and valleys of Virginia, it is now our purpose in few words to give a short account of its products and agricultural capabilities, with a sketch of its climate and scenery, as affording inducements to farmers of all grades and farm servants contemplating emigration not to be surpassed in any region that we know of.

We will again follow the route of the Chesapeake and Ohio Railroad in our rapid sketch of the lovely country through which this road and its extension—from Richmond, the present eastern terminus—to the sea passes. Proceeding from the Atlantic seaboard the country continually rises. There is a belt of lowlands, locally called the "Tidewater District," lying along the coast on the east. It is about 160 miles in width, and is intersected by streams into which the tide-water of the ocean ebbs and flows for various distances, these being more or less according to the slope or nature of the land as it rises towards the west. The tide-water of the James river ends a little below Richmond, and the country in this district generally is rarely more than 200 feet in elevation above mean tide-water level; and, as mentioned in a former article, the tide-waters are kept back by a barrier of low hills, from which is quarried the beautiful granite used in the construction of public buildings at Washington and other great cities of the Union. Over this barrier the streams descending from the mountains fall in numerous cascades and rapids, giving in their course a vast amount of water-power available for driving mills or machinery for manufactures to any extent desirable.

This plain is of the tertiary formation, mostly composed of eocene and miocene clays, marls, and sands, mostly capped or bordered by recent alluvial deposits, forming a very fertile soil. The low seaboard country is less drained, and, consequently, less healthful than the higher and better drained lands. Further inland there are many marshes. The southern part of this district is undrained, and the land lies so low as to be nearly on a level with the sea. The marshes that are found in the southern part of this low country, with those adjacent to them in North Carolina, form a vast morass, which, from its cheerless, dreary appearance, is called the Dismal Swamp. The climate here is warm and damp, and, consequently, unhealthy for Europeans, and no unacclimatised emigrant should attempt to settle there. The richness of the soil and mildness of the climate give rise to an abundant vegetation, and there are fine forests of cypress, pitch-pine, oak, and other valuable timber. There is also a rank growth of rushes and canes, which furnish a vast supply of material for making paper. The timber trade is largely carried on, mostly with the northern ports. There are 36 counties in the "Tidewater District" of Virginia, and by the census of 1870 the population of them consisted of 198,345 whites and 216,981 blacks, making a total of 415,326, occupying an area of about 12,000 or 13,000 square miles.

The accessibility of this portion of the Old Dominion, and its early spring and fruitful soil, have made it to a great extent a market garden, having all the advantages of a hot-bed, for the supply of the great cities of the more northern Atlantic seaboard. It is especially noted for its early peaches, pears, apples, and smaller European fruits, which grow in great profusion, especially strawberries. The peaches, like the pears and apples, grow in orchards without any protection. Wheat, Indian corn, and other cereals are produced in abundance, and potatoes, yams, tobacco, cotton, and stock of all kinds do well.

We next come to the "Middle Country," which, beginning at the granite ridge which divides it from the "Tidewater Country," at an elevation of 200 feet or thereabouts, occupies a district of about 11,000 square miles, and is mainly composed of primary and metamorphic rocks dipping to the east and trending north-east and south-west in the general line of strike of the Alleghanies. The soil is of various degrees of fertility, being formed of the decomposed rocks of the district, of which the principal are gneiss, granite, argillaceous and chloritic slates.

The general rise in the land is from 200 ft. at the edge of the Tidewater region to about 600 ft. at its western side. Some of the soils are poor, but others, again, are extremely rich, and the tobacco raised in these parts is of world-wide fame for its superior quality, and wheat grows in great perfection. Forests of great extent cover portions of the country, and when a forest of oak is cleared, and the land is left uncultivated, there immediately springs up in succession a dense spontaneous growth of pine. This, if destroyed, is again succeeded by an exuberant growth of oak. The native grasses in the low-lying lands are of the sedge kind. Other varieties have to be cultivated, and what are called artificial grasses do very well. The climate is generally mild, and only for a short time in the summer unpleasantly hot. By the census of 1870 the population of this region, containing 21 counties, was 294,971, of which 132,572 were whites and 162,399 blacks or coloured people. These people are mostly engaged in agricultural pursuits, and especially in the rearing of live stock, which thrives here in the greatest perfection.

In our way west we ascend from the Middle Country into what is locally called the "Piedmont" of Virginia, which is a narrow belt of country, as its name implies, at the foot of the mountains, and is at about a general level of 800 or 900 ft. above the water-level, the spurs, or lateral mountains, sometimes reaching a height of 2000 ft. As we go onwards and upwards towards the Blue Ridge we pass many residences of notabilities of the Old Dominion. Here is Monticello, the dwelling of the late President Jefferson. It overlooks the great undulating plain of the Middle Country, which abounds in farms and homesteads. There are numberless beautiful valleys traversing the Piedmont Country. The hills present an endless variety of forms, and the views are very pleasing. The valleys are studded with farmhouses and the necessary outbuildings, lending adornment to the landscape, which presents, in passing from one point to another, a charming variety, often reminding the stranger of the sylvan scenery of many of our home counties, and frequently of very romantic and picturesque beauty. The soil is of a deep red colour, like that of Devonshire in appearance, and, like it, of great fertility. The country is well watered, and the mountains, or hills, are covered by a growth of fine timber. The exuberance of the vegetation attests the fertility of the soil and the genial nature of the climate. The fruits of the temperate European climate grow here to perfection, and in every sense it may in truth be said to be a very fruitful country. In our next notice we shall have to cross the Blue Ridge and enter the great valley of Virginia on our way westward.

Necrology.—The obituary of the *Times* of Friday, Nov. 14, announced the sudden death of M. Louis Le Chatelier, Inspecteur-Général des Mines. M. Le Chatelier's numerous acquaintances in England will mourn the loss of a generous, genial man, and the scientific world in general, and especially the section of it which interests itself in the industrial applications of science, will regret one of the ablest of their compeers. He was born in 1815, was the most brilliant of the pupils of the Ecole Polytechnique of 1834 to 1836, and entered the corps of mining engineers of the State. Here his scientific services were of so high a character that in 1846 he was chosen by the Government to control the railways then in activity. In 1848 he became Ingenieur-in-Chief of the working management of the Companies of the Centre and of the Paris and Orleans Railway. He was successively appointed to the important office of surveillance of the Great Northern of France, the Eastern Railway, and the Chemin de Ceinture. It was during this period of his career that Le Chatelier investigated many questions of the principles of the construction of locomotives and rolling stock, and established his great reputation as an engineer and a man of science. In rapid succession were published "Recherches Experimentales (Experimental Researches on the Locomotive)," in collaboration with M. Ernest Gonin, his "Monogram on the Railways of Germany," his "Studies on the Stability of Locomotives," and the "Guide Mécanicien Constructeur," which latter he edited in conjunction with Flachet, Petiet, and Polonceau. When, in 1852, MM. E. and J. Pereire carried the ardent initiative of the Credit Mobilier into the creation of vast industrial enterprises, they chose M. Le Chatelier for their technical organisation. In 1855 he was of the Committee of the Southern of France Railway with MM. Clapeyron and Flachet, and of that of the Austrian Railways with M. Maniel. Later he was associated with M. Sauvage in the Great Russian Railway Company, of the Council and Direction of the Great Northern of Spain, Administrator of the Transatlantic Company. The types of rolling stock and locomotives adopted first in the Northern of France lines with M. Petiet, were gradually perfected as the new lines were opened, and Le Chatelier's advice was always asked and adopted. And during all this time he served the State on many important commissions for railways, steam-engines, arts and manufactures, and universal exhibitions. He gave in a complete project for the supply of Paris with drinking water, and then for the purification of the sewer water. With his friend M. Henri Sainte Claire Deville he developed the manufacture and application of the new metal aluminium, made investigations on the aluminates and flux silicates, and introduced the use of bauxite for the sides and hearths of furnaces. He was the first to perceive the immense value of Siemens' regenerator gas furnaces for making steel from pig-iron direct. In agriculture he called attention to the use of saline manures, phosphates, and coal ashes, and expended money in setting the example of their use in the cultivation of the Landes. Lastly, he made over to the railway world his invention of the counter pressure steam brake, for which the authorities of the Vienna Exhibition bestowed on him the Diploma of Honour in the mechanical section. Such a career of untiring good work is an example to all. France loses in M. Le Chatelier the last of a brilliant pleiades of engineers, taken away since 1870—MM. Petiet, Maniel, Sauvage, Flachet, Audibert, who, with MM. Chapeyron and Polonceau, organised the railways of France and directed the most important works of an epoch. Le Chatelier's family and friends deplore the loss of one of the gentlest, purest, most unselfish of men, who, in the midst of the responsibilities of his high professional position, could always find time to devote himself to his more sacred duties of father.

COAL IN INDIA.

By Theo. W. H. Hughes, C.E., F.G.S., Associate, Royal School of Mines.

I trust it will not be uninteresting to the readers of the Records of the Geological Survey* to have placed before them a few brief remarks which will tend to widen the scope of their knowledge with respect to our Indian coal fields, and enable them, when the subject of coal is discussed, to uphold the claim which India enjoys to rank amongst the great coal-bearing areas of the world. It will doubtless surprise many to learn that both in the superficial extent of its coal measures and associated rocks, and in the actual amount of its coal, India is surpassed by few countries; and that with respect to the size of some of its seams it stands pre-eminent in the literature of mining. Even that land of monstrosities and natural wonders, the United States of America, can exhibit nothing to compare with the gigantic seams of the Hengir and Damúdá coal fields, some of which are 160, 120, and 100 feet thick. These figures, of course, do not imply that there is this amount of pure coal; the term seam is used in its technical sense, as embracing the whole sum of coal and partings in a given bed.

Until within the last few years the information regarding our coal fields was scanty and imperfect; but of late the action of Government and the labours of the Geological Survey have been more in accord with the requirements of the country; and the result is that although our data are still far from being complete, yet we can form an approximate estimate (which may be accepted as a nucleus for future computations) of the area of our probable coal supplies, their geographical position, and the quality of fuel which they can yield. And, in the first place, with regard to our probable coal supplies, it becomes more and more important, in the face of the steadily increasing price of English coal, to enquire whether India will be able to furnish the fuel so essential to the further development of those industries which the energies of Englishmen have in some instances created, and in other cases fostered to a maturer growth. In answer to this question, around which centres the chief interest in this article, I think it will be sufficient if the reader glances at the subjoined table of areas to feel satisfied on this point.

The same method of calculation has been acted upon in regard to India, in the determination of the superficial extent of its coal-bearing areas as that applied to other countries, and the length and breadth of the tracts over which coal rocks *may be presumed* to extend have been multiplied to give the number of square miles. Taking the coal fields already partially and in whole examined, and allowing for the unsurveyed portions of Central India, Assam, Burmah, and the Tenasserim province, &c., we may safely assume 35,000 square miles as being within the mark.

In order to show how these figures are arrived at, I append the following table. Besides, however, enumerating the different Indian areas, I have added a list of such countries the areas of which I have been able to compile from various sources of reference; and I have also noted the countries in which coal is known to occur, but concerning which there is no knowledge of the extent of their coal measures. By thus enlarging the table I hope its usefulness for the purpose of comparison will be increased:—

Table of Areas.

Country.	Area in square miles.†	Remarks.
India	35,000	This mileage is made up as follows:—Godávari area (including its affluents), 11,000; Son, 8000; Sirgujah and Ganggpur area, 4500; Assam, 3000; Narbada area (including its affluents), 3500; Damúdá, 2000; Rajmahál area, 300; unsurveyed and uncomputed areas, 2700.
United States	500,000	The productive area of coal is much less. Prof. Hitchcock estimates the area of the true carboniferous system at 250,650 square miles.
China	400,000	This estimate is not thoroughly reliable, but it is certain that there is an enormous coal-bearing area in China.
Australia	240,000	In New South Wales the coal area is said to be 120,000 square miles. In Queensland the same area is supposed to exist.
Russia	150,000	This area is probably far below the real extent of the Russian coal formation.
India	35,000	
British America	18,000	
Great Britain	12,000	Mr. Hull gives 5431 square miles as being stored with coal to a depth of 4000 feet.
Spain	8,000	This estimate is vague. Some authorities give 4000 square miles, and others 2000.
Japan	6,000	
Germany	5,000	By Germany is meant all the German-speaking provinces, except those under Austrian rule.
France	2,400	
Austria	2,000	Some of the Austrian brown coal seams approach the Indian seams in thickness.
Belgium	520	
Trinidad	318	
Borneo	—	The coal of Labuan is reported to be of good quality, and very fair coal occurs in the Sarawak territory.
Brazil	—	There are large coal fields in this splendid country.
Cape Colonies	—	There is coal in this as in so many other dependencies of the English Crown.
Denmark	—	Only a small quantity of coal is raised in the island of Bornholm.
Falkland Islands	—	These islands contain coal.
Greece	—	Lignites have been worked at Koumi.
New Granada	—	The coal of this country is said to be cretaceous.
New Zealand	—	The calculated amount of coal in New Zealand is four thousand millions of tons.
Persia	—	A large area of coal is stated to occur.
Portugal	—	A small coal field exists near the mouth of the Douro.
Zambesi	—	This coal was brought to light by Livingstone.
Zanzibar	—	Some coal, said to be Zanzibar coal, was analysed by Mr. Tween, of the Geological Survey, and gave—carbon, 42·4: volatile matter, 30·4 (moisture 4 per cent.); ash, 27·2 = 100.

† Over which coal rocks may be presumed to extend.

The geographical positions of most of our fields have been already indicated in the "Coal Resources of India," compiled by Dr. Oldham, and published in 1867. It was pointed out in that work that a chain of coal fields extended across India from near Calcutta to the Haidrabád assigned districts (the Berars), lying within the 20° and 25° parallels of north latitude; that other fields occurred in the valley of the Godávari and its affluents, and that throughout Assam, Burmah, and the Tenasserim province there were deposits of coal. Some of these fields lie in the route of direct railway communication between Bombay and Calcutta, and of course would prove useful sources whence to draw fuel. But the geographical positions of others again are such that they will probably not answer any useful purpose for many years to come. The quality of Indian coal is usually denoted by the adjective *bad*, but I believe this word has been too freely used. The average of Indian coal is certainly inferior to that of English; but there are many seams in the Ráníganj field, and more notably one or two in the Karharbári field, which yield very good coal indeed. Much of the Assam coal is said to be excellent. And it is justifiable to entertain the idea that if our fields had been more extensively opened out and worked to a greater depth, coals would have been met with of a quality sufficiently good to make us cautious in regard to the indiscriminate use of the word bad. Several attempts have of late been made on one of the short lines of the North of England to burn inferior coals in the locomotive engines, and I have been informed by a gentleman personally interested in the matter that the experiment in which he was concerned proved very successful. The principal modifications of existing arrangements are, I believe, in connection with the grate and draught, but there are minor ones with which I am not acquainted. Nearly the same amount of work, it is stated, was done by the inferior coal as is at present done by the best locomotive coal. How important these practical experiments are in respect to India no one will deny, and I hope the day is not far distant when we shall profit by them.

* From "Records of the Geological Survey of India," No. 3, 1873.

FOREIGN MINING AND METALLURGY.

There has been a fall in some descriptions of copper at Paris. Chilian in bars, delivered at Havre, has only made 86*l.* 10s.; refined Chilian in ingots has made 96*l.* to 98*l.* per ton. Copper in plates has been relatively well supported at Marseilles; Spanish in plates has made 84*l.*; ditto small refined ingots, 90*l.* per ton. The German copper markets have been somewhat colourless, and the transactions concluded have presented no great importance. Prices have generally scarcely varied. A fall of 1*l.* per ton has been noted at Paris in Banca tin, delivered at Havre or Paris; tin from other sources has also experienced a proportionate decline. Banca in ingots has been quoted at Paris at 135*l.* per ton; Straits and Billiton at 133*l.* per ton; and English at 130*l.* per ton. The Marseilles tin market has been tolerably well maintained. While tin has been receding on various continental markets it has firmly supported previous rates in Germany. Transactions in lead have been quiet at Paris, and prices have not varied; French lead, delivered at Paris, has brought 24*l.* 4s.; rough French lead has made 24*l.* 16s. to 25*l.* per ton; Spanish, 24*l.* 16s.; and German, 24*l.* 16s. to 25*l.* per ton. The arrivals of lead at Marseilles have been rather important, and the article has been less firm in consequence. In Germany lead transactions have been unimportant, but prices have been firmly maintained. Silesian zinc, delivered at Havre, has brought 24*l.* 4s. per ton at Paris; rolled zinc, Vieille-Montagne and Silesian, has realised 34*l.* per ton. In Germany zinc has presented no great activity, but prices have been well maintained.

The French coal trade has been quiet, and even more than quiet. The indecision which prevails, and which is prolonged, is not regarded as of good augury, and as respects disposable coal, it may be observed that notable reductions of prices have been frequently conceded of late. Coalowners are now generally seeking orders in France, although they made difficulties about accepting them a few months since; they have even been proposing transactions at a reduction to avoid an accumulation of stocks, which would help on the reaction in the trade now regarded as inevitable. On the other hand, buyers maintain a defensive attitude, and exhibit little inclination to pledge themselves as regards the future, which begins to disentangle itself from the mists and uncertainties which have long obscured it. If it were possible to give the average quotation current in the transactions concluded, it would probably be found much below the official quotations. The latter apply only to small transactions concluded from day to day to meet the more pressing requirements of consumers, who, from the circumstances in which they are placed, cannot hope for any concessions. It is only in the basins of the Loire and the South that the French coal trade exhibits any prosperity. In those parts of France there are only small stocks of coal, because in those districts French metallurgy has not experienced the effects of the crisis which has affected the other French basins, and a harmonious feeling still appears to prevail between ironmasters and coalowners.

The report presented to the shareholders in the United Charleroi Collieries Company stated that the net profits realised by the company in 1872-3 amounted to 156,076*l.* After sundry deductions had been made from this handsome sum a balance of 127,385*l.* still remained, admitting of a distribution of 4*l.* 5s. per share. The dividend actually declared did not, however, exceed 4*l.* per share. The profits of 1872-3 exceeded those of 1871-2 by 94,483*l.* As regards the first quarter of the current year the profits realised are said to be even in excess of those of the corresponding three months of 1872-3. Several new pits are in course of development, and four of them will be brought into operation in the course of the current financial year. Symptoms of an undeniable reaction have appeared in the Belgian coal trade. The first of these symptoms is an impression that the increase in the consumption has not been so much as it had appeared to be, and as it had been represented to be. Very large supplies were laid in during the summer and early in the autumn, and now that winter is at hand there is very little demand. The course of affairs has certainly been very remarkable for Belgian colliery companies. Some of them have lost their ordinary clients, unsettled their workpeople by the excessive advance which has taken place in wages, and have seen their old shareholders, who had become resigned to meagre dividends, replaced by a hungry troop of new proprietors, all the more exacting since they purchased their shares upon high terms. At the same time other industries dependent on the coal trade suffer, and even have a tendency to collapse under the unusual difficulties against which they have to contend. The present state of the Belgian coal trade may be summed up thus: Considerable decline in orders; producers eagerly seeking outlets which no longer present themselves; and serious reductions in selling prices, although some colliery proprietors are obstinately endeavouring to maintain quotations. Stocks of coal are increasing on all sides, and a fall in prices is regarded as imminent. Coal for domestic purposes is evidently the most sought for, while industrial coal is in little request, and coke still less so. The exports of Belgian coal are falling off, and, on the other hand, large quantities of German coal are arriving at Liége. There is little or no want of trucks, &c., on the railways, and deliveries by boats do not present much animation.

The iron trade continues dull in France, and the hopes conceived on the subject have been thus far sadly disappointed. The indecision prevailing in the French political world has something to do with this state of things, but the slowness with which a fall takes place in coal has even more to do with it. The prices quoted are nominal in this sense, that they do not generally represent transactions really concluded, but they are firm in this sense, that it would be difficult to reduce them without loss; most forgemasters would prefer to blow out their furnaces rather than consent to a serious reduction in quotations. Refining coke-made pig is maintained at about 4*l.* 12s. per ton in the Haute-Marne, and 4*l.* 4s. per ton in the Moselle; but it has been in comparatively little demand. Merchants' iron does not rally from its weakness, and remains quoted at former prices. As has been the case, also, with regard to coal, iron best supported its price in the basin of the Loire. Confidence is still felt in the future of French metallurgy now that the coal crisis appears to be drawing to a close.

There has been no improvement in the Belgian iron trade. At Liége, where the blast-furnaces have been maintained, for the most part, in activity, stocks are accumulating, and it is difficult to dispose of them, although prices have been reduced. At Charleroi the production is being reduced almost from day to day, without any sensible result from a selling point of view. One of the blast-furnaces of the Montigny Company has been blown out. Refining pig, hard iron, is quoted about 4*l.* to 4*l.* 8s. per ton. There has been scarcely any quotation for merchants' iron in Belgium, and although there is a relatively active demand for rails, they do not indicate by their prices a very brilliant state of affairs. At an adjudication at the Quarter Léopold for the delivery in two lots of 4645 Vignolles rails, as well as corresponding quantities of fish-plates and joint-plates, the Selescin Company tendered for one lot at 10*l.* 10s. per ton, without accessories, the rate indicated for the accessories being 11*l.* 12s. per ton, delivery to be made at Liége. The other tenders submitted were all at somewhat higher rates. Upon the whole, this adjudication indicated lower prices and little firmness in affairs. Some transactions have been noted in plates, but they have been of no great importance. Machine iron has been pretty well sustained in Belgium. The Belgian construction establishments, without being overdone with work, are not by any means without orders. A reduction in the price of coal can alone produce, however, a serious reaction in the Belgian iron trade.

Water-Power.—One of the first results of the rise in the price of coal has been the formation of a new company in France, the object of which is to utilise the power of the ocean tides on the French coast by proper machinery.

The first experiment is to be made at St. Malo, where the tide rises nearly 80 ft., and overflows many square miles of flats.

THE BURRA BURRA COPPER MINE, AUSTRALIA.

By JAMES BONWICK, F.R.G.S., Author of the "The Last of the Tasmanians," &c.

This may be called the first mining development of Australia. Before it was discovered English miners saw no use emigrating to the Kangaroo Land. To the Burra Burra men, above all others, is due the honour of opening up the gold fields of Victoria. When they crossed the River Murray, and came under the shadow of Mount Alexander, or the old crater of Buninyong, they fell to burrowing quite naturally, and they showed tailors, shepherds, ex-lawyers, and ex-legislators how to use the pick and slab a hole. The Burra Burra kindled the ardour for a colonial search after metals, and it made Australia quite respectable in the eyes of Cornishmen. Although its glory has been dimmed by the copper outflow from the Moonta and the Peak Downs, the story of this Father Mine will ever be interesting.

In July, 1845, a shepherd named Pickitt, tending his flock on the treeless and arid slopes of the Burra Burra ranges, noticed some blue and green discolourations in loose stones which he was piling up for a chimney to his rude hut. The country was desolate enough and lonely enough. Three or four years before the Governor of the colony was on an exploring tour in that neighbourhood; one of his party got separated from the rest, and perished from thirst, while the others only saved their lives by drinking the blood of horses. It was in such a stony waste that the picks of Burra Burra awoke the echoes. Pickitt's intelligence and specimens astonished the Adelaide Exchange. The richness of the ores, the width of the lode, the extent of the field, furnished the quiet citizens with a never-ending topic of discourse. The splendid black oxide and malachite failed, however, to arouse the enthusiasm of one man—a Cornish miner, who had strayed to Adelaide, and worked on grass. He shook his head at the specimens, declared he knew nothing about them, and urged parties not to attempt working. As his suggestions were supposed to proceed from his connection with a particular capitalist, the public were not to be diverted from the project of a company. Had the land been submitted to auction by the Government, in the usual 80 acre sections, an active competition would have ensued. But just then a new land regulation only allowed for two or three years, gave the requisite facilities for getting a block of 20,000 acres at the upset price of 1*l.* per acre. But while arranging there arose such contentions between two classes—the tradesmen and the gentlemen—that there seemed no hope of agreement. It was settled at last that two companies should be formed, that an east and west line should be drawn across the map of the purchase, and that the selection should be determined by lot. The two parties were known as "nobs" and "snobs." The first called their organisation the "Princess Royal;" the other was the "South Australian Mining Association." When the lot was cast, the "nobs" got the southern half, and the "snobs" the northern. The real Burra Burra proved to be on the land of the "snobs." After the purchase of 10,000 acres, and the expenditure of many thousands of pounds, to develope the mine, the "nobs" were forced to sell the land at 18*s.* an acre.

The association was established April 16, 1845. Messrs. Samual Stocks, William Peacock, William Allen, William Paxton, Charles Beck, George Strickland Kingston, John Benjamin Graham, Christopher Septimus Penny, Montague Featherstonhaugh, with John and Thomas Waterhouse, were among its early friends. The purchase was 10,257*l.* 6*s.* 2*d.* out of the capital of 12,320*l.* After the works commenced, Sept. 29, no call was needed. When fairly under weigh, the revelations of the mine fully sustained the hopes of its shareholders. Men who had the greatest difficulty in raising cash for a few 5*l.* shares, saw themselves on the way to fortune. Some very romantic stories could be told of such rewarded faith. The writer met a friend in the streets of Adelaide, in 1849, who spoke of having lost a fortune of nearly 10,000*l.* Being questioned upon his loss, it came out that it was owing to his not having purchased Burra shares when submitted to him at first. A newspaper writer, in 1846, grandly describes the place. "It exceeds," said he, "the celebrated Pargo mines in the ratio of a million to one. The ore is 75 per cent. of metal, a pure oxide, requiring no flux to melt it, a common blacksmith's forge producing heat enough to run the metal. The vein is 17 ft. wide, of vast extent, and is quarried out like stone. Ten weeks' working have sufficed to produce 1700*l.* value of ore."

No time was lost by the directors. There were 400 people up there by October, 1846. The report of the association was indeed a glowing one. The first year's labour, preliminary charges, and cost of buildings, with 7857*l.* for cartage, came to 16,624*l.* But in that time there were raised 7200 tons of ore, valued at 180,000*l.* No wonder the directors were able to commence so soon their remarkable career of declaring a dividend of 200 per cent. each half-year. The mine was in the South Australian range, which runs northward from Encounter Bay, between the Murray river and the Gulf of St. Vincent. The Burra was 40 miles from the river, 80 from the gulf, and 100 from Adelaide. The formation, though primary, cannot safely be indicated in a geological sense, owing to the absence of fossils by which to determine its age. Mr. Selwyn, the Victorian Government geologist, was unable to explore the mine, owing to his being unprovided with a "permit" from the directors in Adelaide. Some little feeling had, doubtless, led to this absence of courtesy. But the gentleman took note of the country around. He found the beds much broken and contorted, and the quartz veins trending towards Mount Bryant, so called after Governor Gawler's companion, who perished near there from want of water. Mr. Selwyn remarked the Burra region to "consist of hard grey and white cherty silicious rocks, crystalline white and grey limestone, blue, grey, and brown arenaceous slaty beds, and hard fine-grained grey flagstones: the latter apparently underlying the cherty, calcareous, and aluminous beds in which the Burra lodes are worked." These lodes ran north and south, with a dip of 40° from east to west. Mr. C. A. Zacharice addressed to the *Adelaide Register* in 1850, and thought a large subterranean fissure must have formed itself to allow of the ascent of copper exhalations for subsequent sublimation. The variety of ores led him to say "Almost all the greater part of Burra ores have been transformed into another state from what they were in after the earliest periods from their formation, many, indeed, by a mutual exchange of their substances." As he noticed most of the native copper in black ores, and first enveloped in a covering of red oxide, he concluded that the latter was formed at the same time, since iron has much greater affinity for oxygen than copper. He thought that native copper and oxide were converted into green carbonates by exposure to air and moisture: and that the scaly and stalactitical structure of ores, with the colouring of their different layers, could be attributed to the action of surface water, which carried down foreign substances, and blended them with the copper.

The red oxides and malachites were the chosen ones of the Burra. A fine specimen of blue carbonate was seen by the writer. It was called the Punchbowl, from its shape forming a natural hollow, 30 in. in diameter, beautifully studded with crystals of different shades; the weight was 2½ cwts. Malleable copper was often found between masses of oxide. Cavities of various sizes were approached in the mine, when malleable copper was seen around and near them. The red oxide repeatedly occurred in blocks several feet thick. Octahedron crystals have yielded 89 per cent. of copper. By far the largest lode was malachite, and, fortunately, that is most easily dressed. The fibrous—both silky and pure—presented itself in larger and smaller sized flat pieces, but so that two pieces always belonged to each other, and were united by numerous connecting knobby portions. The massive malachite shone out like bunches of grapes. Earthy friable malachite clung outside of native copper. At first there was a singular absence of sulphurets or grey copper. But silicious copper, or chrysocolla, in very rich percentage, occurred in the bunch of grapes shape. And yet it could not be said that there were any regular lodes after the Cornwall fashion. "The Adelaide Almanack" for 1846 thus referred to them:—"The length and breadth of the lodes far surpass anything of which authentic accounts are extant in any part of the world, and they crop out of the surface in such quantities that it is calculated some hundreds of tons might be removed without sinking a shaft. In fact, the workings are described as rather resembling quarrying in metal than mining; and a sinking which has just began in one of the lodes seems like working in a solid bed of copper." When the writer was visiting the mine, in 1850, one of the captains remarked, "We call them lodes, but they are not." In the directors' report of 1849 it is said, "Ayers' shaft is 29 fms. deep, at the bottom of which we have a good lode of oxide and malachite, principally the former: the shaft is all lode at present." Some idea of the value of lodes in the 30 fm. level may be formed, says this report, "when it is known that during the present take the men (12 in number) employed in the only two pitches set on these lodes, in the first week of their workings produced 80 tons of the richest ore."

The merry work went on. In 1846, 6359 tons were raised: in 1847, 10,794: in 1848, 12,791: in 1849, 7789 only, in consequence of a strike: in 1850, 13,621: in 1851, 23,338. Dividends all these years were most satisfactory. The very low market price for copper in 1848 was a check. The strike at the latter end of 1848 and beginning of 1849 arose from the men refusing to accept of certain wages; but the directors triumphed, and the mine resumed work.

The great check to the Burra Burra prosperity came from the gold discovery in Victoria. The writer witnessed the rush of copper miners to the new and brighter fields. Absolute despair siezed upon many shareholders, who sold out at ruinous rates, fearing that the gold attraction would forever bring silence to the copper walls of South Australia; but gradually labour returned to the old place. The directors in their report of October, 1852, alluded to brightening hopes, but spoke again of clouds upon the horizon. They said their position underwent no remarkable change during the early part of the half-year just ended; but towards its close, the approach of spring, with the continued attractiveness of the neighbouring gold fields, again tempted many of the men to abandon their work, and so denuded the mine of labour as to render it impossible to carry on the usual mining operations without incurring serious loss. The directors, after consulting the mine captains and other competent persons on the best manner of protecting the company's interests during the present crisis, unanimously determined to suspend the works below the water level, and suffer the water to rise until a sufficiency of labour can be procured. Better days came: labour was imported from England; old miners were dissatisfied with Victoria life. Again the work went on, though with less vigorous effect, and without its former elasticity and hope. The Patent Copper Company smelted the ore for the association, using the patent fuel of bricks of tar and small coal. The 50 fm. level brought out a magnificent show of malachite in a lode 10 ft. wide. Another lode of red oxide, 10 feet thick, was struck in the 40 fm. level. But the principal pitches languished for want of labour—the new hands were not like the Cornish lads. The extra wages paid at the mine were more than equalled by the extra expenses for cartage. For several years horse-feed was at an enormous price; oats could be imported, but hay was too bulky for carriage and distance. The water gained, and the deeper levels could only be wrought at increased disadvantage.

Shareholders looked back upon the olden times; they remembered the profit of 548 per cent. per annum. With that energy which is so marked a feature in the character of South Australian colonists, they battled manfully against their increasing difficulties. In 1860 and 1861 the Moonta Mine struck the Burra Burra a severe blow. So much more money could be earned, and at so much easier a rate, upon the Yorke Peninsula, that a rush of miners took place from the father mine. In vain was rich ore gained at the 70 fm. level; water came in upon the workings from want of labour. The old association wound up in 1865, and the Burra Burra Mining Company became proprietors at the cost of 172,410*l.* The capital consisted of 80,000 (5*l.*) shares. To the holders of the 2464 shares in the original company 49,280 new shares were allotted, with 3*l.* 10*s.* paid upon them. Then came an offer from an English company, that effected transfer in 1866. But the old mine that turned out in so few years 200,000 tons, with an average of 22½ per cent. of copper, will not be easily forgotton; nor can the subsequent yields of Queensland and Yorke Peninsula make the colonists indifferent to the fate of the forerunner of Australian mining enterprise—the ancient Burra Burra.—*Iron.*

LONDON GENERAL OMNIBUS COMPANY.—Traffic receipts for the week ending Nov. 16, 9350*l.* 5*s.* 6*d.*

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advices received Nov. 11 ex steamer Olbers, *via* Liverpool:—

Morro Velho, Oct. 7.—THE LODE REACHED: I have very great satisfaction in now informing you that we have reached the lode below No. 3 stope in the shaft A, being the desired point we have planned to cut the formation in that part of the Cachoeira Mine.

For some days past quartzose rock, with fine veins of iron pyrites, was met with in the northern part of the sump of the A shaft, giving strong indications of the adjacent formation. This morning, when the sump of this shaft was cleared up after the night core's blasting, there were found in the most northerly side of the sump that quantity of solid pyrites which formed undoubted evidence that the lode in the Cachoeira Mine had been reached; the depth in this shaft (A) is a little under 183 fms.

The B shaft is down about 186 fms. 4 ft., and its sinking is being carried on with all possible dispatch. We shall also continue the sinking of Shaft A, taking opportunity to make the requisite opening into the formation as we descend with the sump; the latter as the drainage point being being kept in advance of the opening on the lode. The ventilation is perfectly good in the sumps of both shafts, and though at the present moment the sump of B is in unusually hard rock, still fair progress is being made in the work of sinking there.

It appears desirable to ask the board and the proprietors of the company to exercise a little forbearance with us if we do not open the lode so rapidly as might appear to be desirable in order to get early gold returns. Much of the working of our future plans in the easy and ready extraction of the mineral will depend on the way the opening of the lode is effected, and the outline fixed for mechanical arrangements at the entrance of the shafts into the lode.

It is a great gratification to me to be able to advise you of the reaching of the formation below the old mines so correctly at the desired point when the survey was made before the sinking of these shafts was commenced. This will appear more clearly when the precise measurements of the respective points are given at the end of the month.

Morro Velho, Oct. 11.—The superintendent, confirming the telegram of Oct. 7, adds—"A dozen holes have been bored into the body of the mineral, and the ore raised thereby is solid and good—quite the same as we formerly quarried in that same stope about 11 fms. higher up in the West Cachoeira."

Advices received Nov. 17, ex steamer Boyne, *via* Southampton:—

SINKING IN NEW SHAFTS 15 days in October:—	Fms.	Ft.	In.
A shaft	1	3	9
B shaft	2	5	4

A driving has been made into the formation to the extent of 9 ft. adjacent to the sump in shaft A, and 6 ft. of this in solid pyritic ore.

PRODUCE FOR SEPTEMBER.—The produce extracted in the month of September at Morro Velho:—

From arrastres, &c.	449·1 oits.	
Loss in melting	21·3 ,,	
	427·8 oits., at 8*s.* per oit.	£171 2 5
The cost, less sums receivable from the road contracts is Rs. 8664 $971, Exchange 25¼*d.*		929 12 3
Loss on the month's working		£758 9 10

FERNAM PAES ESTATE—GAIA MINE.

The produce in the month amounts to 445 oits. Less loss in melting	3 oits.	
	442 oits. at 8*s.* 6*d.* per oit.	£187 17 0
The cost being Rs. 2840 $772, at exchange 25¼*d.*		304 15 9
There is loss on working of		£116 18 9

COST—VERTICAL SHAFTS.

Sinking and timbering, Rs. 13,326 $925, at 25¼*d.*	£1429 15 5
Surface works, Rs. 1988 $665, at 25¼*d.*	213 7 4
Total	£1643 2 9

At the GAIA MINE the timber work required for the support of the walls was provided and put in, and some improvements effected in the pitwork. The work is now going on regularly, and more mineral is being raised.

The GOLD EXTRACTED to date in the first eight days of October, at Morro Velho, was 112·3 oits.

At GAIA MINE 190·2 oits., from 85 tons of ore, yielded 2·236 oits. per ton.

The GOLD TROOP was dispatched from Morro Velho on Oct. 14, *en route* for Rio de Janeiro, taking one box, containing two bars, weighing 1785 oits., equal to 17·182 lbs. troy.

NOTE.—The gold has duly reached London.

DON PEDRO NORTH DEL REY.—Report for September: Produce, 11,378 oits. (1312 ozs. troy), at 8*s.* 6*d.* per oit., 4835*l.* 13*s.*—Cost, Rs. 29,574 $433, at 25¼*d.* per milreis, 3173*l.* 1*s.* 10*d.*: profit, 1662*l.* 11*s.* 2*d.* About 1500 oitavas of the above produce should be considered exceptional, obtained from cleaning up the wash house at Bawden's stamps, which are now considered beyond repair.—First Division of October: Produce, weighed to date, 2602 oits. Remittance, 19,061 oits. All works in hand are being continued very satisfactorily.

GENERAL BRAZILIAN.—Report for September: Although still deprived of the pleasure of sending you good news, yet, on the whole, matters at St. Anna are a little more encouraging. The gold return for September is 46 oitavas; this was derived from the small ties during the first six days in the month.

ROSSA GRANDE.—Report for September: The cost for the month amounts to 1134*l.* 3*s.* 10*d.* The total daily average force has been 220 4. The produce for the month amounts to 2042 oits. of gold.—First Division of October: Remittance, 3627 oits.—produce for August and September.

COLORADO TERRIBLE LODE.—The agent's advices, dated Oct. 30, are to hand. He reports that his sales of second-class ore in Colorado have up to the present time exceeded his monthly expenditure. There is a fine body of ore in the fifth and sixth levels. In the next few days we shall hoist a large quantity. The new engine is erected, and working splendidly. The monthly statement for September shows ore raised during the month, $10,640; month's expenses, including construction, $7958·61. Balance, $1681·39.

HOLCOMBE VALLEY.—J. Haley, Oct. 22: We have considered fully the suggestions of your telegrams of the 8th, to Mr. Rowe, and I shall, in accordance therewith, proceed to fit up the old mill for this winter, and if the weather does not prove too severe I hope to be able from the results, as far as possible, to avoid encroaching upon our working capital in hand. I trust that the results of this will justify putting up our mill in the spring, but what we may realise this winter depends much upon the weather. The old mill can only be fitted up for temporary work, and extreme cold weather will interfere much more in working that than if we had our new mill protected, as it must be, from the effects of our sometimes inclement winter. The 120 ft. level is now in 76 ft., showing a ledge 3½ ft. wide, and the ore of a very good grade. I will leave in the morning for Los Angeles, and as soon as possible procure a millwright to go to work on the mill. I shall have to increase the force on the mine next month, putting in four more hands in the 120 ft. level east.

MINERAL HILL SILVER MINES.—The following is an extract from a letter, dated Oct. 27, received by the official liquidator from Mr. Oakes, the superintendent of the mine:—"The explorations in the Taylor tunnel are now being carried on at three different points. The driving east is in the same kind of ground (black shale), and those north and south in hard silicated limestone. We have this week started a prospecting shaft on new ground at the base of the hill west of the Taylor tunnel: a few feet from the surface we found some stones of galena, assaying 312 per ton in silver. This is most encouraging to continue the work."

RICHMOND CONSOLIDATED.—Cablegram from the mine at Eureka Nevada:—"Hall, London.—Week's run, 857,000. King says the mine is looking better than ever, and fulfilling all his expectations.—Probert."

ELDORADO (Gold).—After explaining that the cause of the excessive expenditure of the past three or four months arises from searching for other veins, sinking trial pits, additions to company's property by purchase of areas, supply of coal equal to twelve months' requirements, &c., Mr. Sprague, under date Oct. 31, says—"Before and since Mr. Baker's visit I could only speak of the promising condition of the mine from actual results. I spoke of several months' work ahead. Our prospects were very encouraging, but I cannot account for the sudden falling off on the Mitchell and Plough veins. Of course, I can only speak from present appearances, the chances of continuance, &c., but cannot guarantee success, and I believe that no one acquainted with mining does this." Our prospects of continuance are not very bright just now; we are getting in penthouse timber to secure the men, and on Monday shall lower the plunger-pump preparatory to sinking the shaft.—Plough Vein: Probably we shall sink 20 ft.; the ground to the west is of no value unless a discovery is made in sinking; of the chances of doing this I cannot speak with any degree of certainly, as in no part of Nova Scotia, to the best of my knowledge, has a second gold streak been discovered. East of shaft a portion of the ground will pay to take out: the quantity depends on the angle the gold streak makes towards the fault, and this can only be determined by working, but cannot last long. While sinking the shaft I propose driving the tunnel a little further north, with a faint hope of finding the vein east. On the Mitchell vein there is plenty of quartz, but it is too poor to pay for the working. I do not say there are no veins on the property worth working, but on those we have worked I cannot recommend a further outlay. I offered 5 per cent. royalty for the areas east and west of the Crichton area but did not succeed; since then we sunk a pit on the Major Norton vein, and found a large promising-looking vein, this was only a few feet from the west line; we then went about 20 feet further east, and sunk a shaft through 10 feet of sand, &c., and found the same veins. After making a good shaft we began sinking; the vein is a little disordered, but is the most promising place I know on the property, and if report speaks true of the Major Norton Mine, to the west, we shall have a good mine; I have four men at work; I should think $1000 would sink the shaft 50 ft., and open on the vein so as to test its value. If this place does not prove profitable I should recommend the directors to suspend operations, unless in the meantime we make other discoveries. The men here are not favourable towards a tribute system; I have tried to induce them to work, hoping it would lead to discoveries of value to the company. Since my last we have washed 32 tons of tailings; the result 1 oz. 13 dwts. 12 grs. of retorted gold and 4 lbs. of mercury, equal to $34·65; deducting expenses, $28·15, leaves profit $6·50. This was from the best of the tailings. To set up separate washing tables would cost at least $200. I estimate the tailings, as a whole, to be worth 10 grs. of gold per ton—cost of washing 50*c.* per ton. This would not pay. Next month I think of washing from another part of the heap. The season is very wet.

BIRDSEYE CREEK.—G. S. Powers, Oct. 21: When I last wrote the shaft was raised 16 ft.; it is now 22 ft. above grade, and has the appearance of being nearly through to the surface, and I hope to complete it in a few days. The floor is progressing as fast as possible, and I hope to get the claim ready for washing about Nov. 1. The other improvements are moving ahead, and I hope to have all things ready for work before the wet season sets in. I have nothing further to communicate at this mine, but will write you again when shaft is through.

SWEETLAND CREEK.—G. D. McLean, Oct. 11: We are prosecuting the work on the cut vigorously, and when completed shall have lowered the creek 6 or 8 ft., for a distance of 600 feet. This improvement will remedy for all time all difficulties of outlet, and also draw off the flat above, to the enrichment of the sluices and undercurrent below. I am satisfied we shall be paid handsomely for thus employing ourselves during the absence of water. The improvement will cost us from $3000 to $5000, a greater portion of which we take out while the work is progressing. During the month of September the creek returned us, from cleaning the cut as we proceeded, $2758·71. From this time, or October 1, we shall obtain but small returns, the cut being now pretty well cleared.

CEDAR CREEK (Gold).—J. B. Ludlum, Oct. 22: Everything here is progressing well, and the outlook is promising. Since completing the dam on reservoir No. 3 I have had forces of men repairing flumes and clearing ditches on the line from Shady Run to Lead, also on the Upper and Lower Canyon Creek Canals. The Burnt flume is about rebuilt, with the exception of repairing the iron pipe. At Alta there is a shoot which conveys the water down the hill side under the railroad and into our large reservoir. Part of this had become so rotten as to be unsafe, and as the result of its giving way would be so serious I did not dare to take the risk of patching it again, and have rebuilt about 600 ft. of the upper end. The lower portion, of about the same length, will stand for another season. Work on the Yankee tunnel and shaft is being pushed on as fast as possible by hand. The main pipe is being removed from the Enterprise, and swung round to the junction of the North Star and Wisconsin claims, so as to convey the water to the Yankee and Intermediate claims. This is quite an extensive and expensive job, but one absolutely necessary. I have two forces of men at work on it, one of graders and trestlemen and the other of boiler-makers. I am having a larger rise of pipe placed on the Jehosophat, so as to reap as large a reward from Tunnel No. 1 as is possible the coming season. I am laying in our winter supply of pitchwood, blocks, and lumber. Quite a number of our measuring and sand-boxes, also the flumes in the vicinity and at Gold Run, require to be rebuilt or repaired, entailing considerable expense. I am, however, having as little work done as possible, aiming to patch up the old flumes and only put in new work where it is absolutely necessary, trying to keep the expenses as light as I can. I should have written more frequently this month, but for the reason that I have had so much work under way which requires my personal attention that I have been pressed for time during the day, and so much fatigued at evening that I deferred it from time to time. The extra work is now approaching completion, and I shall try to make amends in the future. The Burleigh drill has not arrived yet, but I presume it is on the road, as it was to have been shipped on the 18th.

EXCHEQUER (Gold and Silver).—Lewis Chalmers, Oct. 27: Since writing you on the 13th I am happy to say that the appearance of the ore in the mine is very much improved. The north drift is in 129 ft., and has a bold looking ore shoot, about 16 in. wide, of hard quartz in the face, just beginning to show mineral: 33 ft. of the pay streak, opposite the cross-cut, has been stripped and stulled, and will average 10 in. in width, in many places extremely rich. When at the mine on Friday I brought with me four beautiful specimens of ruby silver, which I intended sending home but for the expense. I have never seen finer ore, nor have many of the Silver Mountain experts to whom I showed them, seen anything to beat them. But we want it wider, when there would be no difficulty, by increasing the force of stopers (I have only four at present), in supplying the mill. As it is I will get out all I can, and try to make a good run before winter stops hauling, or to have ore enough out and down to the mill to enable me to do so. There is now about 40 tons in the loading shoot, and 10 tons in the mill, all first-class ore. I still think a 20 per cent. dividend can be paid in July if the mine is properly worked all winter, because although the pay streak is small I think the ore will be of so much higher grade as to make up any deficiency in the number of tons produced, while an out turn of 20 tons (with a crusher) in place of 12 tons will give you 48 tons from the mill weekly more than I counted on, and compensate in some measure for the run being of shorter duration. The sum required to meet a dividend of 20 per cent. on the capital stock of the company was $60,000 (12,000*l.*); 20 tons of $50 ore net per day = $1000 per day; 60 days at $1000 per day = $60,000, or only 1200 tons of $100 ore netting $50 per ton, and seven months, or 210 days to get it out and to the mill, equal to 6 tons a day, scarcely taking seven months to get it out, from (say) Nov. 1, would leave June and July to reduce it to bullion. All Silver Mountain has it that we have a "big thing," and our men think and say you are to have a second Comstock a little deeper down. You will see from the foreman's report, enclosed, how hopefully he speaks.

Oct. 18.—The north drift is in from cross-cut 114 ft. since last report, having drifted 15 ft. We have a big lode, and I think we shall have some good ore soon, though it is poor at present. The stopes look first-rate, 14 car loads of very good ore having been taken out this week. The lode is very good in the back yet; the rich ore, I think, will average 10 in. all along the stopes.

Oct. 25.—The north drift is in from the cross cut 129 ft. since last report, having drifted 15 ft. this week. Some pretty good stones of ore have been taken out, though there is not much improvement yet: the lode is about 4 ft. wide. We have taken from the stopes eight car loads of rich ore this week, and some of the richest specimens of ruby silver I have ever seen. We have put in six stull timbers, and commenced stripping the lode again.

I. X. L. (Gold and Silver).—Lewis Chalmers, Oct. 27: The setting of the boiler I bought of the Exchequer Company is well on to completion, and today I sent up lumber for the boiler-house shed, which will soon be run up. I have also from San Francisco the invoice of a larger pump—a No. 5 Blake—capable of throwing 90 gallons a minute at ordinary speed, and 150 at maximum speed. The larger of the former pumps I will use to feed the new boiler. We are still getting out seem good ore from the old works. I am anxious to get the water out of the shaft to see what this large crevice which held so much water is going to lead to.

NEW ROSARIO (Mexico).—M. V. Cummins, Oct. 13: The mines continue to look well, and this afternoon 47 cargas, averaging 12 marcs, have been weighed into the store. The PROVIDENCIA being our most important point, I have considered it advisable to place all the labour I can upon it, and instead of commencing immediately to sink the shaft deeper Capt. Skewis has preferred driving the levels as quickly as possible, so as to have large stopes in readiness by the time the Americans are prepared to receive the ores. To expedite this driving the English miners who were sinking the shaft in the Rosario Mine have been removed to the San Manuel level, in Providencia. We are also continuing to drive the top, or San Juan level, in Providencia, with two pares of Mexican miners, and I am glad to say that it looks well, and is yielding good quality ore. Preparations are being made for the erection of a second whim on Providencia, and I hope that in January the extraction of ore, and the progress made with the works, will prove satisfactory to the directors and shareholders. In compliance with the instructions of the board, the ores shall be retained until the Americans are prepared to reduce them in the works they are now erecting. Their hacienda will be in readiness in January, but I am informed that they will be prepared to purchase ores from next month. I do not yet know on what terms they propose doing so, but if they are what we consider fair it may be equally as advantageous to sell the ores as to have them reduced. This, however, is a matter that may be decided later on.

M. V. Cummins, Oct. 13: The Americans are employing all the hands they can, in order to get their reduction works at Pachuca advanced as rapidly as possible. With English and Mexicans together they have 800 men employed in completing their hacienda. As the PROVIDENCIA is the mine from which we may expect the largest immediate returns, I have thought it advisable to employ all the strength I can on it. I am on the look-out for another whim, and am preparing the place for it, so as to have everything in readiness for the Americans in January, when I hope to turn out sufficient ore to satisfy you. As our shaft in the Providencia Mine is 15 varas deeper than our bottom levels, I thought it better to defer sinking it deeper for a short time longer, and in the meanwhile to continue driving the ends as fast as possible, so as to have good large stopes laid open and ready to be worked away as soon as the Americans are ready to receive the ores.

N.B.—The above reports were received by the French mail, on the 17th instant, since which the directors have commenced, and intend to continue, sending out increased remittances regularly bi monthly, in order to work the company's other mines, as well as the Providencia, energetically, and thus to increase the supplies of ore for early reduction as much as possible.

CAPE COPPER.—Returns for September: Yield from Ookiep, 675 tons of 33 per cent.: Spectakel, 82 tons of 35 per cent.—Railway: Traffic for six weeks ending Sept. 20, 726 tons up and 1600 tons down.—Transport of ore during September: 1300 tons to railway and 130 tons to Hondeklip Bay.—Bills of lading received: 125 tons of ore per American, 350 tons per Lynwood, 56 tons per Jessie Daniel, 720 tons per Glenudal, and 174 tons of ore and 26 tons of regulus per Danube and Asiatic steamers.—Arrivals at Swansea: The Antonio Vinent, with 600 tons of ore and 23 tons of regulus; and the Lynwood, with 350 tons of ore.—Sales: 390 tons of ore, by public ticketing, on Oct. 28, at an average of 16*s.* 6*d.* per unit, realising approximately 9400*l.* Put forward for sale by public ticketing, on Nov. 18, 280 tons of ore and 18 tons of regulus, ex steamers; and on Dec. 2, 467 tons of ore ex Antonio Vinent.

WEST CANADA.—Oct. 20: Huron Copper Bay: The stope in the bottom of the 50, west of Palmer's shaft, will yield 3 tons of copper ore per fathom. A stope in the back of the same level, east of the shaft, is also producing 3 tons of ore per fathom. In the bottom of the 35, west of Bray's shaft, there is a stope yielding 2¼ tons per fathom.

BENSBERG.—J. W. Hoffmann, Nov. 17: On Saturday last we reached the carbonate on the newly-cleared ground, and got 10 tons that day. In the level at the west end of the open-cast we have got into carbonate at 15 feet from the mouth, and are now following it up. The 20 metre level from the shaft has been driven another 3 feet without meeting with any change. Production of carbonate, 10 tons; dressed ore, 15 tons of 47 per cent. assay.

[For remainder of Foreign Mines, see to-day's Journal.]

GENERAL BRAZILIAN.—Capt. Thomas Treloar has issued an exhaustive report to the shareholders, regretting he has not the pleasure of announcing success, as he had expected, but feels he has worked hard and done his utmost for the company; but he cannot and will not give up without one effort more in the interest of legitimate mining and in the hope of saving the company. Want of success, he is glad to say, is not attributable to any failure in the mines—they are still unexplored. The original capital was not sufficient, and in addition to this unexpected difficulties have been encountered. When he left London, last year, he felt sanguine that in six or eight months he should strike gold; but on arriving at the mines he found matters at a lower ebb than he expected. With the limited means at his command, he felt inclined to return to England at once and attempt nothing; but after further reflection he set to work, although on a forlorn hope. He has done some good, although he has not achieved success. Of the funds placed at his disposal (9171*l.*) about 6000*l.* have been expended; so if gold should be struck now it will be too late (he fears) to be available without fresh capital. The company have three extensive mining properties (not simply one), and the total amount expended, including purchases, does not reach 200,000*l.* Some mining companies have raised double the sum—nay, much more. It may be said that the mines do not appear to be so good as he believed them to be. He admits this—no miner can see through the ground; but from what he has read and heard, and from what he has himself seen, his faith in the mines is still unchanged. Extracts from letters of accredited authorities are appended, fully confirming the opinion of Capt. Thomas Treloar as to the value of the mines. One is a letter from a former owner, Senor Benardino da Costa Lage, showing that the last works at St. Anna, made by himself, Commendador Francisco de Paulo Santos, and others, were commenced in the dark as regards the actual position of the main shoots of gold. The absence of riches and the "caco" are considered proof that Santos's shaft is wide of the spot aimed at, and that they have been misled. Another letter is from Commendador Francisco de Paula Santos, showing that, notwithstanding he and his party failed to reach the gold, one of the oldest owners, and one who knew St. Anna well, Commendador Casimiro Carlos da Cunha Andrade, gave him (Santos) Rs. 14,000 for his fourteen shares. No better proof could be furnished that the mine was left rich. Another is from the Brazilian mine captain, Francisco de Souza. This man knows the Itabira mines well, having been almost all his life employed in them. He maintains that they are good mines. By the company he has been poorly paid, and, though he has been offered by other employers greater remuneration, he has stuck by the company, feeling sure the mines are rich, and that his wages will be increased when the works reach the lode.

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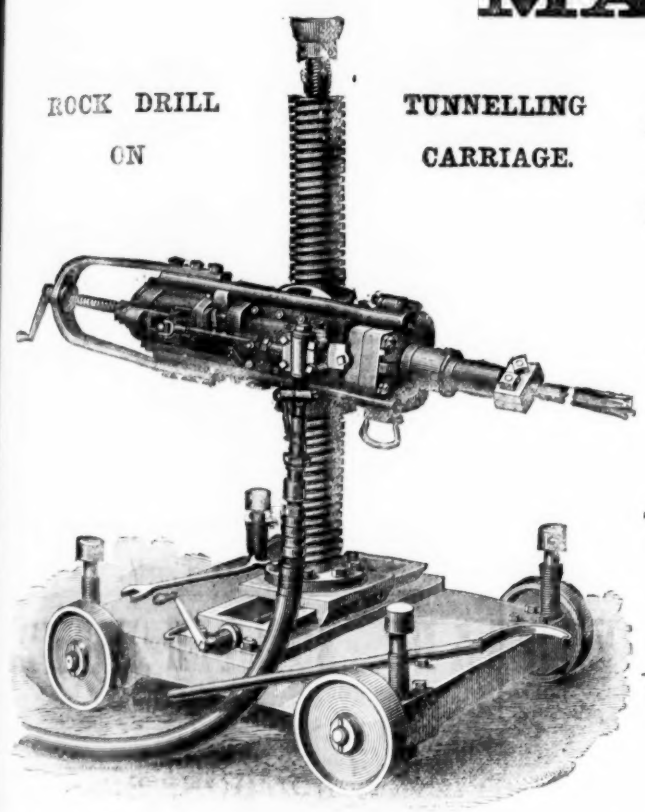

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Two Silver Medals, Highland and Agricultural Society of Scotland, 1873.

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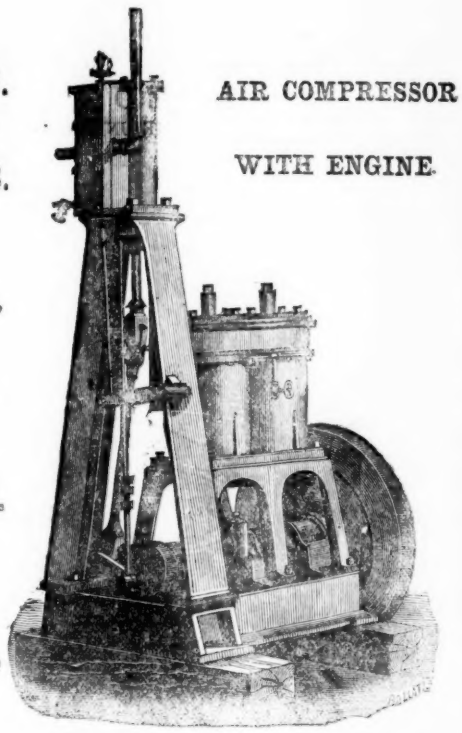

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Labourers, six, 12 days each, at 3s. 6d.	12 12 0
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ADDITIONAL TESTIMONY.

(Copy.) *The Weardale Iron and Coal Company, viâ Darlington, Sept. 6th,* 1873.

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I am, yours truly,

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(Copy.) *Crossfield Iron Ore Works, Crossfield Moor Row, viâ Carnforth, Sept. 8th,* 1873.

Dear Sirs,—In reply to yours of 2nd inst., I am sorry I have not time to go into the comparative results of hand labour in sinking with that of the work done by your "Burleigh Drill." All I can say is, that for the last few months it has been giving me every satisfaction, and there is a marked difference in the progress of our sinking operations.

I am, yours truly,

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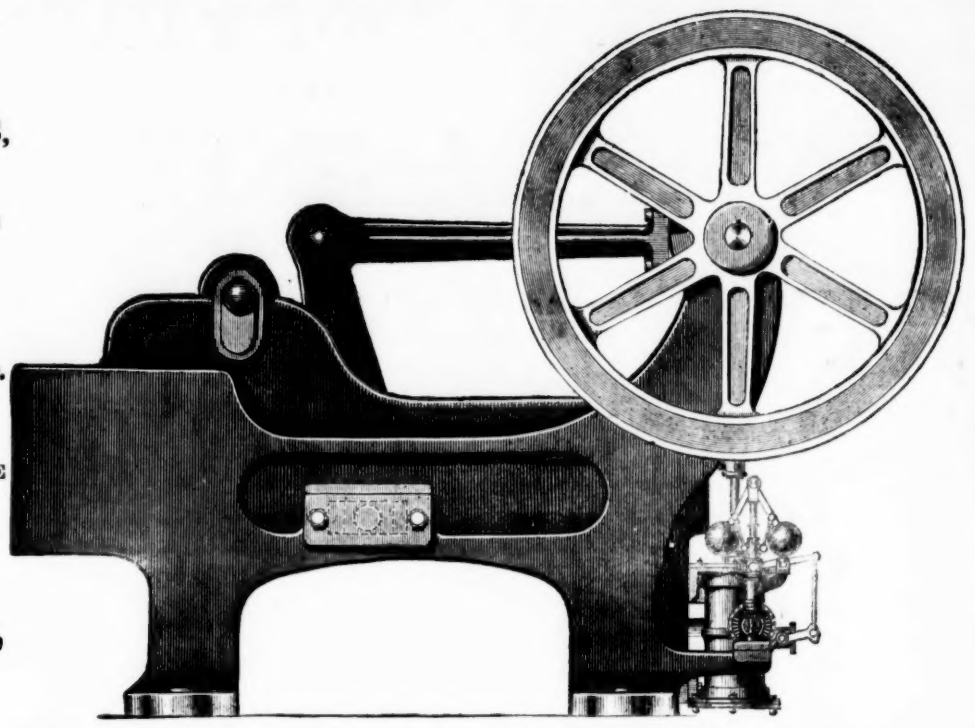

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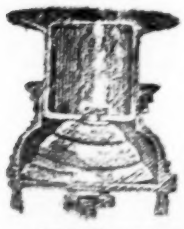

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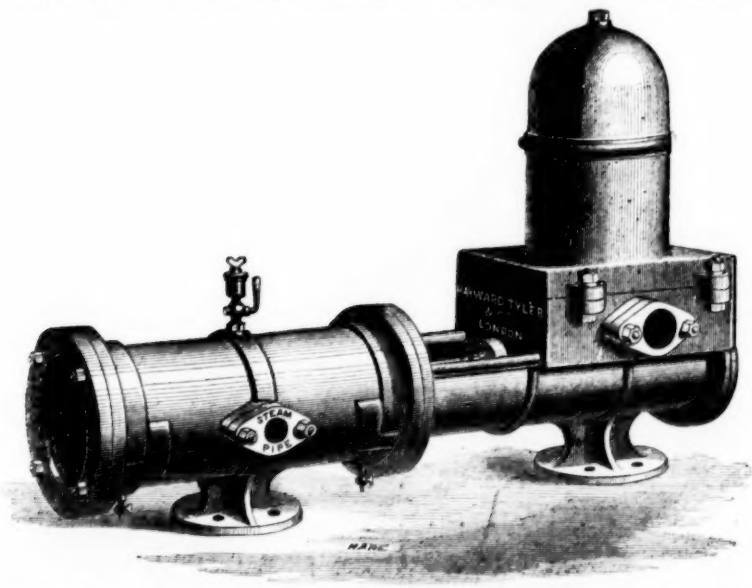

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